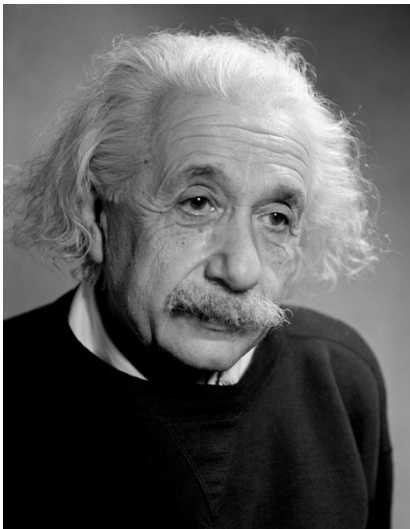


THREE MISTAKEN SCIENTISTS

Isaac Newton – Charles Darwin – Albert Einstein

by Stefan Grossmann, with Draft Paper of 2011-08-29 by Hitoshi Kato

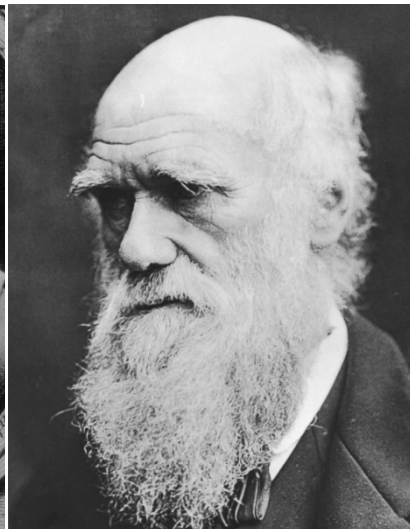
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Albert Einstein



Sir Isaac Newton



Charles Darwin

A scientist is a person who makes the right mistake at the right time. They all three did that.

Science is built on valuable and creative mistakes, and is a never-ending process.

The main purpose of science is making intelligent mistakes.

Stefan Grossmann
at <http://archive.org> Community Texts, per October 2015

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by Hitoshi Kato: Fermat's letztes Theorem (German)

<https://archive.org/details/HitoshiKatoFermatsLetztesTheoremAlgebraischeBeweiseunveroeffentlicht>

Introduction

A frequent reader of Wikipedia articles, I have gained the impression that the editors believe that a „scientist“ is someone who knows what actually is real. That is, even apart from Wikipedia, a common prejudice. That is quite misleading, however. Scientists to this day make their career, not so much by „knowing things“, which is secondary, but by making discoveries in their field, which is primary. (Note that „discoveries“ means as much as, „new discoveries“.) Since science is well covered by literature, scientists today live from the mistakes of earlier scientists, either their false opinions, or their lack of opinions, on certain points. In its dynamics, science generates increasing amounts of information. In the future, as far as it is foreseeable, scientists will continue to uncover mistakes of earlier scientists (including scientists who are living and working today), and to correct them and to fill in blank spots in the infinite knowledge map. Science is, first of all, a critical venture in the knowledge world.

We are living in a time of exploding information masses. Also, connected with that, we are living in a time of great changes. One particular bottleneck for the advancement of science is, attachment to older, venerated scientists. It is particularly hard with the great names to admit that they made mistakes – actually, that they were great for the very fact that they made great mistakes. Three such examples are Isaac Newton, Charles Darwin, and Albert Einstein. School children today are mistreated in science courses by being taught their mistakes, without being instructed that they are mistakes. That is a blockade of science.

There are vested interests behind that blockade of science. Partly those interests are religious, coming from powerful churches who do not want innovation. Partly those interests are economic, for example, from the petroleum industry, who do not want energy generators that are independent of petroleum fuels. Partly scientists themselves are uncritically and irrationally attached to theories that cannot be proven and are mere hypotheses, such as the hypothesis of evolution of humans from non-human life forms. The mettling of such ideological and economic interests with, and censorship of, scientific research, innovation, university studies, and implementation of technologies is undue. Thanks to the world wide web, at least a certain amount of free information flow is maintained today.

If science is, as was stated, a critical venture in the information world, a key field for all scientists, and for readers of science reporting, is the knowledge of scientific mistakes. This publication wishes to contribute to that field. It is all too often not a lack of knowledge of mistakes, but human screw-ups on behalf of the science community, that lead to covering up such knowledge, and that prevent correction of the scientific mistakes and the socio-economic foundations of such mistakes. Great and creative mistakes are of the unintentional type, whereas, mistakes in form of the human screw-up type are simply shit on the fan, alas, an abundant sight in today's science world.

It is of most critical importance to distinguish between valuable mistakes, such as those of Isaac Newton (gravitation), Charles Darwin (evolution of man from non-man), and Albert Einstein ($E = mc^2$), and stupid and unproductive mistakes arising from human vices that are much more common in science. The distinction is one between genuine scientific mistakes on the one hand, and ethical mistakes of the science personnel on the other hand. This article will talk about both types of science mistakes. The three good and great mistakes (Newton, Darwin, Einstein) just mentioned provide, in their reception histories, many bad-ass examples of ethical mishandling, even mangling, through mistakes of the second type. This writing project is informative, but also humorous to the extent that ridicule of the “Darwinian” science community is involved.

1. Isaac Newton: Gravitation Mistake

Isaac Newton was born in Woolsthorpe-by-Colsterworth on Christmas Day, December 25, 1642, and died in London on March 20, 1727. He became one of the most famous mathematicians and physical scientists of all times. He was Warden, later Master, of the Royal Mint. He was knighted and became Sir Isaac Newton. He had pronounced occult interests. He is often called the “Father of Modern Physics”. He gave physics the notion of “gravitation” as a mono-polar force.

We know today that Newtonian gravity as a mono-polar force is not a sufficient explanation of celestial mechanics. (See my links above on p. 2, fifth link, pdf, Michael Psellos etc., therein: Appendix Against the Lunatics.) It is very likely that Newton himself knew this because he took special pains to rework his theories for the orbit of the moon. Sir Isaac Newton was doubtlessly the most clever science forger of the seventeenth and eighteenth centuries, of the so-called “Age of Enlightenment”.

2. Charles Darwin: Human Evolution Mistake

Charles Darwin was born in Shrewsbury on February 12, 1809 and died at rural Down House on April 19, 1882. Charles Darwin was a geologist and naturalist who developed, but did not invent, the theory of evolution of the species. He claimed that man evolved from monkey-like creatures. That is Darwin’s human evolution mistake.

Today, more than a century after Charles Darwin, despite feverish searches for conclusive evidence, no such conclusive evidence has been discovered anywhere, anytime. This grieves materialists in the science community who lie that Darwin’s theory of human evolution is proven, when it is actually not proven. Darwin himself did not claim to have watertight evidence. I would grant Darwin that he was under influence of a genuine mistake without fraudulent intent.

3. Albert Einstein: $E = mc^2$ Mistake

Albert Einstein was born in Ulm, Germany on March 14, 1879 and died on April 18, 1955 in Princeton in the U.S.A. He became a physics professor, emigrated during the Nazi era to the U.S.A. and became a U.S. citizen. He was one of the most celebrated falsifiers of science in the twentieth century.

We know today, and it is hard to imagine that Einstein himself did not know, that the celebrated formula, proposed by Einstein, $E = mc^2$, is an ingenious description of a principle (equivalence of mass and energy), but as a mathematical equation, it is totally false. From about the year 1920 on, the unqualified use of this formula, and its adaption by the so-called “Lorentz Transformation”, is one of the greatest science frauds of all times. The Lorentz Transformation, that has essentially replaced Einstein’s original formula (which is merely an embarrassment) describes a sine curve that results in zero (“0”) for all solutions, which is another way of saying that it is darkly humorous nonsense. Journalists and TV show makers love to teach the worship of this nonsense, and school teachers as well. I remember being warned in school to keep away from it, and that one could not use it literally, which was quite frank advice.

Here are some examples of the convoluted Einstein science fraud today:

1. The rest mass of the photon is zero. That assumption is false. The rest mass of the photon is not zero but is greater than zero. Some physics professors today admit that. Photons (light rays) are attracted by gravitation because they have mass, which is not explainable with their kinetic energy under the Newtonian monopolar gravitation if they, hypothetically, were to have a rest mass of zero.

2. The constant velocity of light, c , as used in Einstein’s formula, is not always constant. Light rays are described in the literature that move up to 50 times and more multiple of c . Under the fraudulent Einstein math, that would make a single beam of light weigh more than the galaxy. That is patent nonsense.

3. If one uses Einstein's formula for an electron with a standard Coulomb charge and typical textbook rest mass, the Einstein formula is wrong by a magnitude of more than 10^4 ,

<https://www.physicsforums.com/threads/electron-mass-energy-do-not-conform-to-e-mc-2.268434/>

4. The U.S. government (NIST agency) broke the light barrier in an experiment in 2012:

<http://www.nist.gov/pml/div684/light-050212.cfm>

5. Another example of the scientifically productive genius, Albert Einstein: Two people stand back-to-back in a field. Each of them carries a powerful lamp. They hold their lamps so that the two lamps point into opposite directions. Then they turn both of their lamps on. Each lamp emits a ray of light (physically speaking, of photons). The tips of the two rays of light are moving away from each other with the velocity $2c$ (twice the speed of light), but that fact does not make them millions of tons heavy, as Einstein predicted, wrongly, for a speed of $1c$. Children will understand that, but apparently most scientists are not able to grasp that.

That information taken together means that the Einstein formula $E = mc^2$ is out of the window. It has become a part of science history. That is well known to specialists today but still has not made it into the public mind. Einstein's formula is imaginative instead of correct. It is still a pillar of today's physics belief system, however. It is best subjected to methods of Bible interpretation for dark and obscure verses.

4. Why Do Certain Mistakes Gain Dominance and Persist?

It's the money. Modern science is corrupt to the bones. It is in the pocket of the oil and gas industry. That converges with the materialist bias of most of modern humanity.

What Shall We Make of This?

Scientists are a clumsy folk who do their thing in such a way that it cannot succeed. Science today is, in other words, an exercise in self-defeat. They deny the larger part of reality and then scratch their head over the strange assortment of what is left. By doing so, many scientists in history and today develop an outright fraud itch.

I am not prepared to write a satire. The subject is too serious for that. People like Isaac Newton, Charles Darwin, and Albert Einstein, are counted as geniuses among humans. They were among the most intelligent of their times, which also let them be at the top of the societal fraud game:

- For Newton: Leibniz was slightly ahead of him in mathematics according to the records. Newton would probably not have been believed by Leibniz in terms of gravitation concerning the Moon; the Leibniz papers are still being assembled in the ongoing Academy Edition in Germany.

- For Darwin: He never provided what he himself reasonably was able to consider irrefutable evidence, which is why the wild goose chase for the "missing link" continues to this day, a futile squandering of science funds by mentally challenged evolution biologists in my humble opinion. Darwin outfrauded most everybody of his time in the science community, probably including himself, even though clamorous opposition against his theory of human origins was present from the very outset of his theory. Darwin was a confrontationist.

- For Einstein: He sweetly outfrauded everybody in his time; however, as far as we can tell, Max Planck for example saw through Einstein, but played along in a very supportive way.

I have a tentative explanation that science geniuses like the three mentioned here have an inherent drive to communicate with other people, which, I believe, is quite a doubtless proposition. At some point in their careers, each of them got the message that the only way to communicate efficiently with other people is to address the false self, or ego, in the other people. Recognizing that, each of the geniuses then did accordingly, and each time to a great benefit for the scientific advancement of mankind.

That is, repeatedly, the point where negativity has crept into science, and to this day has proliferated abundantly to the point that science is dominated by negativity. What does that mean?

We are reaching a point today where the afore-described mode of science as a fraud-as.fraud-can game is no longer the most feasible way of conducting the science venture. The key motive of fraud science is money. It is necessary to disassociate science and money. That entails a vast make-over of our society and economy, both of which, conveniently, are bankrupt, anyway.

Let us put Isaac Newton (gravitation) and Albert Einstein ($E = mc^2$) to rest. Their (extremely productive and ingenious, see above) mistakes are, today, mathematically evident. (There is a tick of “mathematicians” to want to “prove” mathematics by mathematics. I will not enter into such a foolish venture here.)

That leaves us with Charles Darwin. He is actually the scientist who has most to say to us, respectively, to explain post-mortem about his mistake. Technically, if one follows what I wrote above, his “mistake” is not really a mistake, but is a “hypothesis”, namely, an assumption that falls short of being proven true or false. Hypotheses such as that are indispensable tools for developing science and, potentially, for discovering new pieces of the infinite science puzzle.

Charles Darwin proposed, as a yet unverified/unfalsified scientific hypothesis, that man (*homo sapiens sapiens*, that is, our own species) “evolved” (through the passage of time and morphological change of animal species of a monkey type) from the animal kingdom. Since Charles Darwin, much material of a scientific nature has been assembled in the “pro-evidence” box, but also, in the “contra-evidence” box. Where are we in this, continually shifting, evidentiary situation of Darwin’s evolution hypothesis today? Pursuing that question as an example for all can bring us closer to answers to the nature and the purpose of science in our changing world. Thusly, Darwin continues being a good guide, while Newton and Einstein, as physical mechanists, had their roles for foundational scientific paradigm development mostly in the past, by today. Darwin, a biologist (like Aristotle in ancient Athens was also a biologist, not a “physicist”, physics in the modern sense of the word being an invention of the Renaissance age, only, some five hundred years ago) remains an eminently fruitful thinker to this day on the foundational level.

Biology is the science of life (not of, mechanistical machines). That fundamental distinction needs a lot of massaging before it becomes even somewhat meaningful. It is, first of all, a philosophical distinction with much history in its tow.

In antiquity, philosophy and science were primarily derived from the study of living beings (Aristotle, biology). Since the Renaissance, that basis flipped; and philosophy and science became derived from the study of allegedly “inert” and “dead” matter and material objects (general Anti-Aristotelian turn of modern science, materialist “Enlightenment” of Isaac Newton the gravitation swindler.) That stakes out the range of the issue.

I write this in this tone not because I would want to insult the greatest scientists, which is an insignificant motive at best, but because I want everybody to be able to understand this just from reading it. Also, I do not find fit to demonstrate undue respect to scientific theories that, however useful they may have been in the past, have been proven wrong. It is wrong and detrimental for science to be living in the past.

The recent discovery by impeccable scientific means of the variable acceleration rate of the universe, see in my vol. I and II per the links above) is a good example of how scientific progress of knowledge can topple, practically overnight, the moronic world-view - excuse my French - of the science community. Science is based on reality, not on delusion. It is funny that that needs to be emphasized today.

Human life is spiritually valuable only to the extent that the life generates experiences that reflect in changes of the human being. Once a human, usually around age 30 or 40, stops developing in this sense, the life is of no particular value in the overall Creation scheme. Similarly, science is only valuable to the extent that its ventures generate experiences that reflect in changes of the overarching science theories. The theories, at least at the detailed level, are of passing value at best, and are useful is they are in constant flux. The rigid lock-in of the moronic science world-view today, a form of fundamentalism, is out of sync with that principle.

Actually, Charles Darwin has taken exactly that moronic world-view and has cast it into the figurative. That has strong overtones of more than just biology; it is, in its overtones, a metaphor of human science, and of the risks of delusionary deception that every scientist enters into, at large. For the metaphor, the screaming monkey was more realistic than the braying ass. If Darwin and Einstein had been Zeta Reticulan aliens, avatars born into homo sapiens sapiens bodies, they would have been perfect teachers of coming to terms with one's own deep fears and the delusions that they cast on the screen of science. We are at the point of reaping the harvest of that enlightening foray into the dark and dank human mind of old, of fraudulent scientists posing as Darwin's "missing link".

Michael A. Cremo; *Human Devolution: A Vedic Alternative to Darwin's Theory*; Los Angeles 2008, sets the materialist human origins delusion straight. Science is basically a grandiose fraud operation by demented scientists to falsify reality. The most important single technique is the non-reporting of relevant facts, which is prolific in modern science writing, science teaching, and science reporting. The basic structure of that are lies of omission, in contexts where truthful representation would require mention of certain facts instead of their omission. This strategy is, apparently, partly unintentional, as is demonstrated by frauds such as the Piltdown Man fraud for which allegedly critical and skeptical "scientists" fell in droves, until the swindle was revealed. The demented are actually gullible people of high credulity as long as their specific anti-truth bias of negativity is addressed. Younger generations of scientists are becoming more careful and balanced, thankfully.

To this day, what mainstream evolution biology has to say about human origins is myth and concoction, flying in the face of many known facts. Biology professors are lying through their teeth. They are maniacally bent on stopping the true facts, and their pattern of human origins, to become known to the public. The driving motive behind that can only be explained by clinical insanity of the liars beyond any profit motive. It is important to expose the human origins fraud being perpetrated against mankind, and to expose the mob of crazy lying scientists. Naturally, insane persons need to be removed from all academic positions and locked away in nuthouses, since the purpose of academic institutions and their valuable funding is by no means to promote insanity. Mentally ill scientists pose a severe threat to academic freedoms; they are a brain cancer of mankind. One reason for confining them is that their derangements take focus off the scientific issues and force resources into writing a fraud history of the explicit and tacit negation of scientific issues by technically cunning deceivers.

Personally, I disagree with most of the substantive "findings" of Michael Cremo. I do not believe that science today is in a position to date events before, say, one millions years ago. Scientists are the same mad bunch who claim that the electron is an "elementary particle" (not composed of separable parts), while at the same time one of the most common events known to physics is the splitting of an electron into an electron of slightly lesser energy plus a photon, and reverse. Stupidity of that magnitude is schizophrenic. Scientists are the same mad bunch who claim that the Moon is several billion years old, held in orbit by gravitation. Scientists are the same mad bunch who claim that the Darwinian evolution has "conclusive proof" (I don't want to mention the name of the professor who wrote that on the internet.) That is human behaviour that is not acceptable to me as scientific; I find it dreamy and unproductive.

Cremo argues for human devolution, that is, for materially incarnated human organisms descending from a spiritual realm where they are not materially incarnated. That is his proposed "Vedic" alternate explanation for human origins on our planet. He mentions Near-Death Experiences, as researched, which provide a grip on such a notion, when it is reversed (not de-incarnation, death, but incarnation, birth). There is additionally research about reincarnation. In principle, none of this is suited to prove specifically how humans did appear on Earth, but does make for a possibility, to those who are willing to follow such an argument, how human life may have come to this planet. In light of the fact that there is no proven contradictory explanation, Cremo's proposition seems fair enough to me.

Cremo's strength is not in "proving" his alternate explanation, but is in pointing out evidentiary weak spots of the Darwinian ape-to-man theory. The alleged Darwinian ancestor of man was a *Dryopithecus*

species, of which there were quite a few, as he writes. Darwinists are not sure which *Dryopithecus* species might have been the common ancestor of ape and man some six million years ago. Darwinists cannot tell us much about the very first hominids, either, prior to *Australopithecus*. In the fossil track, there is no closure linking ape ancestor and man. That is the so-called “missing link”, named thus because its most prominent feature is that it is missing, and has been missing for all of 150 years of feverish search on behalf of the atheist fanatics. Their search of one and a half centuries actually has a positive result: namely, the confirmation of the missing link – precisely, its nature as “missing”.

Let us just take a little tour in our imagination: Imagine that archeologist will find, or possibly already have found, the “missing link” in form of some bone fragments. The bone fragments suggest a being with an upright posture. The skull has teeth suggestive of an omnivore. There is a rather big brain cavity. The face has an indication of a protruding snout, but not more extreme than on a bonobo chimpanzee today. That just possibly might be: (i) remains of an ape, (ii) remains of a human, or (iii) remains of something in-between the two (transitional fossil). What means would archaeologists and other researchers have to establish with any viable certainty, which of the three was represented by the being whose remains are on the table? If we ever found the missing link, in such scattered fragments as is typical in archaeology, how would we recognize it? Would its skeletal hands be holding a sign saying: “missing link”? That is just for sake of discussion of this point. That shows how unlikely and implausible it is to expect a clarification of this delicate question from established standard scientific research methods, or at least from them alone.

Put in different words: science today does not even know what is the precise difference between “animal” (such as, ape, ape-ancestor) and “human” (such as, we). Only once that question will have been settled to the satisfaction of all involved is it reasonable to expect a scientific research venture to verify the presence or absence of the distinguishing feature or features, and thus to clarify the question. If the question remains as unclearly asked as it is today, it will never be answered.

What is it to be “animal”, and to be “human”?

Hence, the first step for science is to rephrase its question in such a format that it becomes possible to answer it, without turning in circles for eternity. How to go about this?

All our languages tell us that “animal” and “human” are two different things. My answer is that “animal” is an organismic life form with, typically, two energy bodies (of photon-electron plasma), whereas “human” is an organismic life form with, always, eight energy bodies, and a human-type (vast) free will center in the seventh energy body (see my vol. II per the links above).

Intermediary forms do not occur in nature. Cloning a human physical body is possible; but at our level of existence it is not possible to provide it with eight energy bodies plus human free will center. It is possible to clone a human physical body and to provide it with (i) either a walk-in human energy body system, or (ii) a machine soul of lesser complexity (say, three, or five, energy bodies). That does not make such an android a human. Even an android does not branch from animal life naturally, or by natural selection (against Darwin).

Can this be proven to you? If you want this to become provable to you, which is not impossible, you will have to alter your state of mind and your perception. It is possible to learn and to train to see auras (around plants, animals, humans, in nature) by the peripheral vision of our eyes. With a lot of training and experience, you can learn to discern layers in the aura. You will see that animals, including highly developed animals like apes, have two aura levels. You can probably, over a lifetime, also learn to see (or in the alternative to feel with sensitized hands) up to seven of the eight aura levels of a human. You can thereby also discern an android clone such as the former “president” of the U.S.A., George W. Bush, who, in the many versions of the clone, has five aura levels and not more, and no free will center.

Materialist-only (entropy-only, etc.) science today is way far removed from even beginning to accept such methods of observation. Without them, however, the question at issue here cannot be answered properly. For

basic reading, there is a book by a former NASA scientist: Barbara Ann Brennan; *Hands of Light* (with artist's illustrations). Taking such a path, you will certainly not be asked to "believe" anything in any final way, since the principle is observation, like in any field of science.

How else to go about this?

Let us say, you want to skip the foregoing section with the energy bodies and auras etc. Is there anything else one can do to distinguish between animal and human, something, perhaps, that would leave a track in the archaeological record?

Good archaeological advice is, that beings who are found together with tools (more precisely: "their" tools) were most likely humans. Animals like chimpanzees can also use tools, such as a stick. It would have to be a "human" tool, such as, a handcrafted stone tool. That is a good indicator of human life versus animal life. Use of a fire for cooking is also a very good indicator of human versus animal life.

The trouble is, that very ancient sites are few and far apart. Those possible humans who died there did not always do their future excavators the favour of leaving tools, or remains of a fire for cooking, or cave art, etc. It is possible, of course, to find human remains where there are no tools in the vicinity. Then, I guess, intuition is called upon. Genetics will be summoned to assist. Ape and human DNA are so closely related, however, that the DNA venue is not really suitable to critical readers out of the hype and euphoria circles. Still, essentially, the search in best hopes today is not so much for transitional fossils, but for transitional DNA. The hope of finding that, and of properly and incontrovertibly identifying that, is, I am afraid, illusory. Would you not agree? If no, what exactly do you hope to find? I do not see the point.

The ideological point at issue is, to be able to define what a "human" is in purely material terms. That is, of course (I find) where the big mistake sits. Take that blocker away and things start becoming doable. That is a huge challenge to science today, but not an impossible challenge. The first step on such a path is to change your, the scientists', false and limited thinking, and its ingrained attachment to the highly incomplete matter-only paradigm. Alfred Russel Wallace, the co-inventor of evolutionary biology together with Charles Darwin (and some others of lesser standing) actually held such views, which are an embarrassment to the embarrassment that is biology today. Can science get over that point (without the usual but delaying generational die-off)? If no, science will remain at a dead end and will risk becoming obsolete.

Michael Cremo points out that Alfred R. Wallace in the nineteenth century, at this aporia of science, became a researcher of the paranormal. He was not blocked by the negativity of most people who will flatly deny the existence of ghosts and spirits, even when they are captured on camera. Most people will also deny that they themselves are spirits, who are materially incarnated for a certain time. Man's spirit nature is the same as the human energy bodies, or levels of the aura, already mentioned. The crux is to verify those energy bodies by observation. There are methods that are either direct (such as, lucid dreaming, astral travel, learning to see auras, ghost/spirit photography), or that are indirect (such as, mother-child telepathy and telempathy, Near-Death Research, reincarnation research, etc.). For those who have successfully verified their own spirit nature, the assumptions of Alfred R. Wallace come naturally.

At the center of Wallace's verification efforts was the medium Daniel Dunglass Home. Home was as obvious a psychic as, today, Criss Angel in Las Vegas, who has had many TV shows demonstrating levitations, disappearing from view, etc. The line-up of curious physicists and other "scientists" intent to investigate this today is zip. They are not really curious scientists but are mental phlegmatics interested only in snoozing on in their sweet dreams. The medical laboratory parapsychology was completed by Giuseppe Calligaris in the first part of the twentieth century, again with no noticeable effect on the indolent "science" community of fools.

“not intelligent enough” and “intelligent enough”

It is important to generate a clear scientific line between “not intelligent enough” and “intelligent enough”. The intelligent enough have already ascended to a higher humanity, somehow, stage-wise, that is, step by step. We can look up to them. Since there is always hope, some day we might eventually become such a higher human, too. For the time being, just grin and bear it...

The following consists of two papers: both are mathematical, but both are very simple. All you need is a Casio

pocket calculator that has enough scientific umph in it so you can type in the equations that you are looking at. Let the Casio (and none other) do the calculation. If you “think”, which is a mistake for a human, then you will start getting scared. So: don’t think, just have a Casio ready and type. If you notice that your fingers are not touching the Casio keys, then you are probably thinking, off in human lala-land. At that point, remember this and wake up, and start typing. Then all will be well.

The first paper is written by me. Watch out for any typing mistakes, or other dumb mistakes, that I might have made. I wrote down instructions that Hitoshi Kato gave to me, responding to my request, by phone, and other instructions. This first part I refer to as

“Hitoshi Kato’s Toolkit” (pp. 3-41).

Even though both papers are childishly simple, I strongly recommend starting at the beginning. Don’t peek at the end (when nobody is looking); this is not a suspense novel; but this is something serious. If you don’t realize with every breath just HOW serious this is, then you are the wrong reader for this...

The second paper (the real paper) is written by Hitoshi Kato (died in Munich in September 2013). At the time when he was working on it, I was working on a paper of my own, in certain ways a preface to Kato’s paper below; that paper of my own is in chapter 1 of my vol. IV (see links above).

Kato started mathematical revisions of Einstein. The following is one of his draft papers. I refer to Kato’s paper as

“Hitoshi Kato’s August 29, 2011 Draft Paper” (pp. 43-121).

The paper attached below is not Kato’s final word before he died. In my records, I have more documents from Hitoshi Kato in this line of work. What he considered to be his main work is a very large Excel table of January 9, 2012, wherein Kato calculated an energy matrix proceeding from zero to superluminal; he found that the cap to superluminal speed per Einstein’s (by now falsified) formula $E = mc^2$ is nonexistent. The document name is: PART III DISTANCE OF THE ELECTRON.xls (46.05 MB). That is not shown here.

This gives us a clear definition: “intelligent enough” have cracked Fermat’s Last Theorem by mathematical, and not poetic, means (see Kato’s paper on that, rather unimportant text is German, numbers are universals), in the links above on p. ii. Humans to this day have not tackled Fermat’s last theorem by mathematical means. (I am aware of Professor Wiles; and I mean him, specifcly.) Working on a level of mathematics that can crack Fermat’s Last Theorem mathematically is the distinction that is needed for future science.

ZETAS NOTES – PRESENTATION OF IMPORTANT FRAGMENTS

Nothing herein is final except your steps of awakening.

- Hitoshi KATO's Toolkit -

The instruments are quite simple. Hitoshi KATO uses a scientific pocket calculator made by Casio. He advises to use no other brand except Casio because they are the only ones that let you punch the keys in a sequence that comes naturally and intuitively. Further, he uses a Windows PC equipped with MathCAD and MS Office Excel software.

Do not expect to work out the calculations in your head, on paper or with a slide-rule. You will need the assistance of the electronic equipment (not necessarily MathCAD.)

Do not rely on your school or university math instead of this toolkit. Otherwise, somewhere along the way, you will miss the point. For sake of discussion and as a mind experiment, why don't you simply forget that you have heard about math in your life, and start from there.

If you wish, in order to visualize your automatic pre- and sub conscious speculations, you can acquire for yourself from the internet a set of the UMMO letters. They were probably not written for this purpose. However, it is as if they actually were written for the purpose of helping you to become aware of your addictive and speculative thinking that distorts.

The first mathematical activity that Grossmann was made aware of by Kato since December 2005 was Kato's analysis of cell phone building antenna radiation. This is a practical relation engineering task in 4D phase space. It shows that cell phone building antenna radiation has a mathematical fingerprint through its wavelengths and oscillation sequences. Cell phone radiation can thus be identified and distinguished from other purported factors of a hum problem in southern Germany. Very disturbing noticeable resonance in a small fraction of the population occurs. The cell phone radiation, especially from the building antennas, is an advanced usually unnoticeable matrix attack on the human psyche through the calcium carbonate in the human skeleton and the DNA molecules. Other beam weapons in place and operating are the radiation from computer networks, the internet, TVs, star war satellites, and quantum radio stations in the underground infrastructure.

Pursuant to the foregoing overview, here follows a list of separate key documents in the aforementioned file directories, with the precautions already mentioned (especially a DISCLAIMER above concerning Kato-Grossmann_Matrix_Report.pdf.) This is a key selection from the entire file collection presented, to be taken in the given context:

Letter, Kato to Grossmann, 2006-01-03 (received date)

Letter, Kato to Grossmann, 2006-08-09

Grossmann transcribing Kato (Kato-Grossmann_Matrix_Report.pdf),
especially chapters 4, 5, 11

Kato's set of four responding documents, MATRIX 1.doc through MATRIX 4.doc

Hitoshi Kato once mentioned that there is an intelligence field. (The following is *not* a discussion of what, in the literature, is termed the Computational Intelligence Field, or CI.) When asked about this on 2011-09-15, he confirmed that there is such a field. It is represented and activated in the individual mind by the recurring elements that his mathematics rely upon, such as the curvature constant $\ln 2/2\pi$ and other repetitive math elements. Specifically, Mr Kato indicated that mathematics operating on such elements activates a person's astral body (fifth body in the sense of Michel Desmarquet and Barbara Ann Brennan, the seat of psychic activity) and its connection to GOD.

Follow overleaf materials from the prior documents mentioned at the top of this page as part of Hitoshi Kato's toolkit. The most salient point is that Mr Kato's work is not, initially, based on „fomulas” – it is based initially on lots and lots of readings and their numbers, putting them in sequence, studying and observing them, and then gradually coming to conclusions as to possible regularities embodied in them.

The following is a selection from a write-up that Grossmann compiled in August 2006 and that subsequently was subjected to critique by Mr Kato. It is presented here merely as a set of three preliminary tutorials, that is, for purposes of eye-opening and providing the reader with something to whet her or his mathematical teeth on:

Tutorial One

**CHAPTER FOUR
HITOSHI KATO'S DECODATIONS –
NAMES OF DEMONS, SAINTS AND THE UMMO CODE**

Source: Letter from Hitoshi Kato to Stefan Grossmann, received 2006-01-03, electronic document on CD 1: cloak&dagger.rtf, 54 MB, text in (partly ungrammatical) German.

On page 23, the electronic document quoted above says, summarizing the entire connection:

**UMMO WORT SYSTEM UND WORT SYSTEM FÜR 72 GOETIC DEMONS IST UNTER
MOSES BIBEL CODE 304805, GENAU ÜBEREINSTIMMT.**

In English:

Ummo word system and word system for 72 goetic demons is under Moses Bible code 304805, matches precisely.

This precise numerical match is a great mystery, not for its existence, but how such - obviously not a coincidence - can happen in three different apparently unrelated hidden code systems:

The first step was to search Hitoshi Kato's electronic document for the following search term:
304805

The search yielded five results, to wit:

1. page 23 of 140: quotation per above on this page, already translated and explained.
2. page 50 of 140: expression in an Excel spreadsheet, see document.
3. page 67 of 140, English sentence: **So radius length is 304805.** Context see document.
4. page 70 of 140, English paragraph:

Product from this sigma word code by sigma bible code of 304805 is the curvature of 33625,41705 for mass of $2E+30$ kg.

Curvature of word at 203 multiply by all letters of old testament 304805, we get the constant r^3/t^2 of sun's gravitation field.

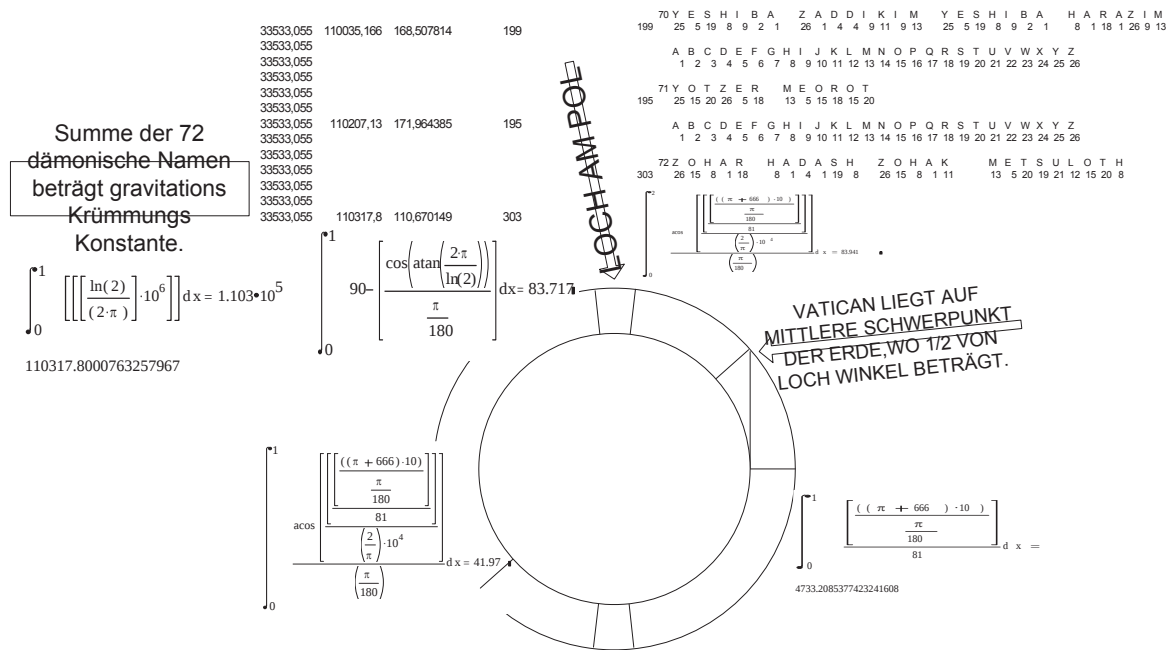
One can take value 304805 on sub tangent, then together with subnormal and subtangent, became 90° , which is the eternity ∞ .

Context see document.

5. page 99 of 140: expression in an Excel spreadsheet, see document.

The second step was to copy the fomula graphics from Hitoshi Kato's electronic document until the section where the Excel spreadsheets begin, as follows:

From page 1:



Left German text: Sum of 72 demonic names equals gravitational curvature constant (i.e., 110317.8000763257967).

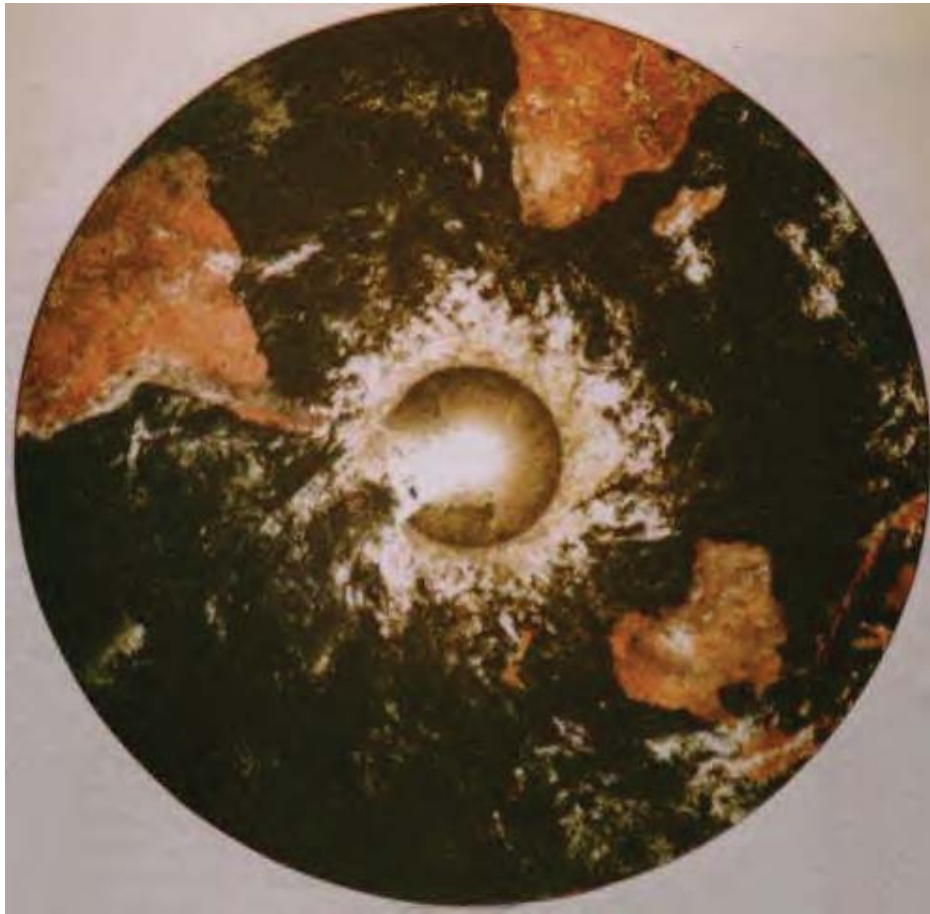
Middle/vertical German text: hole at the pole.

Right German text: Vatican is located on median gravity center of the Earth, where it is 1/2 of the angle of the hole (polar entry hole at 83.7 degrees latitude).

Pages 38 through 41, with text:

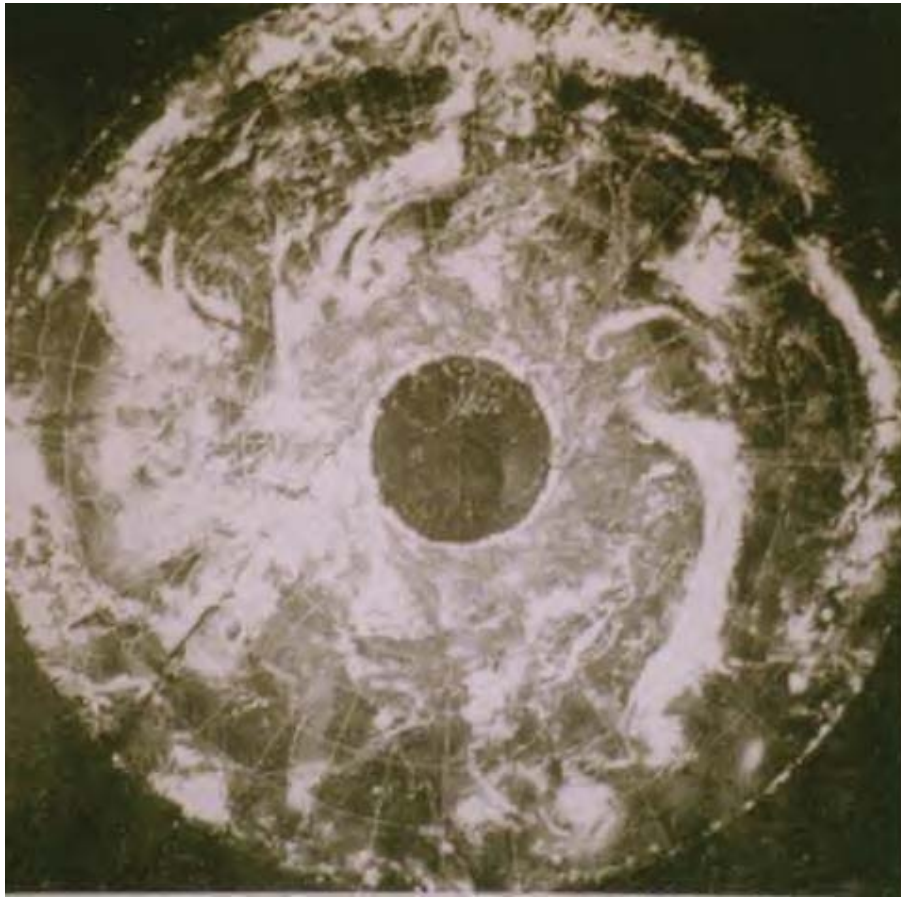
Ohne genaue Kenntnis über das Loch am Pol hätte nicht unbekannter Jemand, Formel $\pi + 666$ an Aaron/James Donahue mitteilen, auch 72 Namen nicht. Code System mit Formel und 72 Wörter ist haargenau gleich mit UMMO Wort System und 5 Bücher Moses Computer Programm.

English: Without precise knowledge about the hole at the pol, an unknown somebody would have been unable to convey to Aaron/James Donahue the formula $\pi + 666$, nor the 72 names [of Goetic demons, Hitoshi Kato found names of saints in the Pentateuch with same numeric sum]. Code system and 72 words are precisely the same with UMMO word system and five books of Moses computer program. [The Umno papers are purported Alien papers known rather widely in France and in Spain, see in a good search engine.]



NASA Foto von Südpol,etwas perspektisch verzerrtes Bild von Winkel Grad von $83,7^\circ$. In der Mitte wir sehen ein kalt leuchtende sonnenartiges Objekt, über das NASA mehr weiß.

English: NASA photo of the south pole, slightly distorted by perspective, of the angle degree of 83.7° . In the middle we see a cold shining sun-like object about which NASA knows more.



Pi bedeutet Winkel Grad von 180 Grad, eben so Wert 666, aber konvertiert Winkelwert zu Abstand in Kilometer, und teilt durch 81, erhalten Wert von 4733,2 Kilometer. Also ein quasi mittlere Abstand zwischen Mond und Erde von 383389,9 Kilometer ist $81 * 4733,2$ Kilometer.

Pi means angular degree of 180 degrees, likewise the value 666, but converts angular value in kilometers, and divided by 81, get value of 4733.2 kilometers. Further, a quasi median distance between Moon and Earth is 383389.9 kilometers is $81 * 4733.2$ kilometers.

$$\int_0^{10} \frac{((\pi + 666))}{\frac{\pi}{180}} dx =$$

(4.1) 383389.89155712825703

$$(4.2) \quad \int_0^1 \frac{\left[\frac{\left(\frac{((\pi + 666) \cdot 10)}{\frac{\pi}{180}} \right)}{81} \right]}{dx} = 4733.2085377423241608$$

Dann festgestellte Wert im Verhältnis mit Radiuslänge der Erde, Kosinus Wert gesucht:

Then for noted value in relation with radius length of Earth, looked for cosinus value:

$$(4.3) \quad \int_0^1 \cos \left[\frac{\left[\left[\frac{\left(\frac{((\pi + 666) \cdot 10)}{\frac{\pi}{180}} \right)}{81} \right] \right]}{\left(\frac{2}{\pi} \right) \cdot 10^4} \right] dx = 0.736 \blacksquare$$

Durch Umrechnung, leicht Winkelgrad von 41,97° festgestellt.

By transformation easily determined angular value of 41.97°.

Note by SG: $100 - 81 = 19$. 81 (rounded) is one of the apocalyptic numbers.

Page 42 (with text):

$$(4.4) \quad \int_0^1 \frac{\left[\left[\frac{\left(\frac{((\pi + 666) \cdot 10)}{\frac{\pi}{180}} \right)}{81} \right] \right]}{\left(\frac{2}{\pi} \right) \cdot 10^4} \cdot \frac{\left(\frac{\pi}{180} \right)}{dx} = 41.97 \blacksquare$$

Breitengrad von 41,97° liegt Vatican ungefähr ½ von Loch Winkel am Pol.

Latitude of 41.97° is Vatican approximately ½ of hole angle at the pole.

Page 49 (page where the Excel spreadsheets for the adding of names begin):

$$(4.5) \quad \int_0^2 \left[\frac{\arccos \left[\frac{\left(\frac{2}{\pi} \right) \cdot 10^4}{\left(\frac{\pi}{180} \right)} \right]}{\left(\frac{\pi}{180} \right)} \right] dx = 83.941 \blacksquare$$

Page 62 with text:

Ummo Wort System ist mit Definition EXGIGIAM ONNOXOO in der Bereich 0,1103178...Wert entspricht mit Aufsummierung bei Wort System von 72 Goetic Demon. Definition der Goetic ist mit 333768,9 etwas kleiner als 336254,170.

Ummo word system is with definition EXGIGIAM ONNOXOO in the vicinity 0.1103178... Value corresponds with summation of word system of 72 Goetic demons. Definition of the Goetic is, with 333768.9, slightly smaller than 336254.170.

$$(4.6) \quad \left(\frac{\frac{304805}{2 \cdot \pi}}{\ln(2)} \right) \cdot 10 = 336254.1705226448446$$

$$(4.7) \quad \int_0^1 \frac{10^{14} \cdot [(\pi + 666)^{-1}]^3}{1} dx = 333768.94264675160222$$

Aus letzte Stelle der Tabelle 72 Goetic Demon mit 110306,918.

From the last position of the table 72 Goetic demons with 110306.918.

Page 64 (format: text only):

Definition UXGIGIAM ONNOXOO mit Bereich von 11028,34-11078,54.

Definition UXGIGIAM ONNOXOO in the vicinity of 11028.34-11078.54.

197	1	1	0	0	0	1	0	1		17,07106599	11028,34329
199	1	1	0	0	0	1	1	1	curvature = $\frac{dr}{d\varphi} = \frac{\ln 2}{2\pi} = 0.11031780007632579670$	16,89949749	11045,24278

201	1	1	0	0	1	0	0	1		16,73134328	11061,97413
									CURVATURE = UXGIGIAM ONNOXOO 21+24+7+9+7+9+1+13+15+14+14+15+24+15+15=203		
203	1	1	0	0	1	0	1	1		16,56650246	11078,54063

$$(4.8) \quad \text{curvature} = \frac{dr}{d\varphi} = \frac{\ln 2}{2\pi} = 0.11031780007632579670$$

The above gives a good introductory impression of Hitoshi Kato's early January 2006 letter. Hitoshi Kato refers to the curvature 0.11031780007632579670 as „gravitational constant” or „Ummo constant” and stresses that Col. Thomas E. Bearden (scalar technology) and Area 51 black budget research are not yet aware of it.

On page 114, Hitoshi Kato gives an overview of the extremely close resemblance between the three code systems he investigates, namely the 72 names of the goetic demons, the 72 names of saints in the Bible and the Ummo language system. Here is the excerpt:

Für 72 Dämonen ist dritte Wurzel 1,494452013... und für 72 göttliche Namen, Wert 1,496779089... Für UMMO Wort System beträgt 1,498152051...

For 72 demons the third root is 1,494452013... and for 72 divine names (from Pentateuch) value 1,496779089... For the Ummo system the value is 1,498152051...

	Constant/10000	Third Root
Ummo System:	3.362541705	1.498152051
72 Goetic Demons:	3.337689426	1.494452013
72 Divine Names:	3.353305501	1.496779089

Tutorial Two

CHAPTER FIVE
HITOSHI KATO'S TRANSCOMMUNICATION FORMULAS

See: Stefan Grossmann, Armageddon, Smashing the Lie, 1-7-6
 Stefan Grossmann, Mind Wave Secrets, Parts 1-3, January/early February 2006

The Montauk experimental radar frequency band of 420 MHz to 450 MHz (Montauk Projekt T delta antenna) is reached by the square root of 190,000 ($19 \cdot 10^4$):

$$(5.1) \qquad \sqrt{190,000} = 435.889894354$$

The following is the relation of planet Earth's natural Schumann frequency (7.8 Hz) to the number approximating the upper bandwidth of the Montauk radar experiments:

$$(5.2) \qquad 7.8^{9.69988215115} = 449.999 \approx 450$$

During a telephone interview on 2006-02-10 with Hitoshi Kato, I typed on a Casio scientific pocket calculator:

$$(5.3) \qquad \ln (450 \cdot 10 \times 10^6) = 19.9247581407$$

$$(5.4) \qquad \ln (7.8) = 2.0541237337$$

$$(5.5) \qquad \ln (450 \cdot 10 \times 10^6) \div \ln 7.8 = 9.69988215115$$

We discussed the following sequence:

1 st	89
2 nd	$89 - 11 = 78$
3 rd	$78 - 11 = 67$
4 th	$67 - 11 = 56$
5 th	$56 - 11 = 45$
6 th	$45 - 11 = 34$
7 th	$34 - 11 = 23$
8 th	$23 - 11 = 12$
9 th	$12 - 11 = 1$

$$(5.6) \qquad \sum_{i=1}^{n=\infty} \frac{11^i}{100^{i+1}}$$

The Fibonacci sequence: 1, 1, 2, 3, 4, 8, 13, 21, 34, 55 ...

The Golden Mean.

Chain division.

Pascal's triangle, see in Handbuch der Mathematik, diagonals, Fibonacci sequence, in fractal geometry: Sierpinski's triangle.

$$(5.7) \quad \frac{22^n}{100^{n+1}}$$

The Schumann frequency is derived from the Fibonacci sequence.

The Fibonacci numbers are the basis of plants (the order of their leaves).

The interview continued thus, coming to a very interesting point:

$$(5.8) \quad 2\pi \div \ln 2 = 9.06472028365$$

multiplied with the progression of radio vectors.

$$(5.9) \quad 1 \div 9.064720283605 = 0.11031780007$$

$$(5.10) \quad 0.11031780007 * 304805 \text{ (Bible code constant)} = 33625.417051$$

Hitoshi Kato said in German: „By this value I divided the Lucifer 72 demons and Ummono language.”
(German original: „Mit diesem Wert habe ich Lucifer 72 Dämonen, und Ummono-Sprache, dividiert.”)

Ummono curvature constant: 83.6

Almost identical with third law of Kepler, planetary constant (approximately 3.365).

The sun's mass is $1 / 19 * 100,000 = 5263.15789474$.

$$(5.9) \quad 1 \div 1.9 = 0.526315$$

$$(5.10) \quad 0.5263 * (\pi \div 2) = 0.8262$$

$$(5.11) \quad 0.8262 \div (\pi \div 180) = 47.3684210526$$

$$(5.12) \quad 47.3684210526 + 90 = 137.368 \text{ (Sommerfeld's fine structure constant)}$$

The Sommerfeldt constant is one of the most mysterious numbers in all of physics.

$$(5.13) \quad 137.368\sqrt[3]{10} = 434.39708 \text{ (Montauk frequency, also c. computer base frequency)}$$

$$(5.14) \quad 434.39708 \div 2 = 217.19854 \text{ (cell phone frequency)}$$

$$(5.15) \quad 47.3 \div 2 = 23.65$$

Precession angle of the Platonic year, also in the Cheops pyramid.

$$(5.16) \quad 23.65 \div 2 = 11.825$$

Angle between the hole at the north pole to the heaven pole (magnetic north pole). Same at the south pole. Pole curves in to the Earth's middle.

Van Allen belt: This angle, sun wind, forms as band structure.

At the end of this interview, I calculated on my Casio pocket calculator:

$$(5.17) \quad \tan^{-1} \{(2 * \pi) \div \ln 2\} = 83.7047112193$$

That is the latitude of the rims of our planet's two polar entry holes into inner Earth.

In an interview on Sunday, 2006-02-12, Hitoshi Kato explained the Donahue formula $\pi + 666$ and some of its ramifications:

We started by noting the speed of light in vacuum (metric): $c_0 = 2.99792 * 10^8$ m/s.

This is what Hitoshi Kato describes as the Donahue code:

$$(5.18) \quad \frac{\pi + 666}{\frac{\pi}{180}}$$

The result of the equation is 38162.1307484, said to be the wave length of Earth's natural Schumann frequency (7.8 hertz).

$$(5.19) \quad 38162.1307484 \div 81 = 471.137416646$$

Other forms of the Donahue code are: $\pi + 6666$ etc. up to 4000 decimals.

$$(5.20) \quad 1 - 1 \div 1.9 = 0.47368421052$$

$$[5.9] \quad 1 \div 1.9 = 0.526315$$

Let us say for sake of discussion that $\frac{1}{4}$ of the Earth circumference is 10,000 km. 5236 km are thus a part of this. The other counterpart is 4737 km. For the basis of 100, 81 is the counterpart of 19.

The angular value of the reciprocal value of 19:

$$(5.21) \quad 0.526315(\frac{\pi}{2}) = 0.82673490883$$

$$(5.22) \quad 0.82673490883 \div (\frac{\pi}{180}) = 47.3684210526$$

The other part of the angle is $-90 = -42.63 * -1 = 42.63^\circ * 2 = 85.26^\circ$, slight deviation, nearly 83.7° .
Donahue's value:

$$(5.23) \quad \frac{\pi + 6666}{\frac{\pi}{180}} = 382113.666234$$

is the median distance between Moon and Earth.

$$(5.24) \quad 382113.666234 \div 81 = 4717.45266956$$

4717 km from the center of the Earth towards the outside is still inside the Earth. This is the mutual center of gravity of the Earth-Moon double system.

$$(5.25) \quad \frac{2}{\pi} 10000 = 6366.19772$$

$$(5.26) \quad \cos^{-1}(4717 \div 6366) = 42.1860$$

$$(5.27) \quad 42.1860 * 2 = 84.37218$$

Donahue code: Approximately one-half of the angular value of the polar hole. That is the most important from Donahue here.

$$(5.28) \qquad 1103 + 5263 = 6366$$

$$(5.29) \qquad \text{curvature constant} = 1103 = \frac{\ln 2}{2\pi}$$

$$(5.30) \qquad 5263 - 1900 = 3363 = \text{Ummo code}$$

$$(5.31) \qquad \text{Ummo code} = 727 + 37 + 2599 = 3363$$

An anecdote from Tolstoy's „War and Peace”: Pierre comes to a freemason. The mason says: The entire universe is a mystery of two numbers: 3 and 7. Tolstoy's literary predecessor Pushkin in „Pique Dame”: Herman, a gambler, killed an old woman. She had said: 3 and 7. In prison, Herman incessantly mutters: 3 and 7.

$$(5.32) \qquad 3^2 + 7^2 = 9 + 49 = 58$$

$$(5.33) \qquad 58^2 = 3364$$

Hitoshi Kato: There is a connection, at least a schematic!

$$(5.34) \qquad 6366 * 2 = 12732 = \text{diameter of Earth}$$

$$(5.35) \qquad 1.2732 = \text{rising value of the great (Cheops) pyramid}$$

$$(5.36) \qquad \tan^{-1}\left(\frac{4}{\pi}\right) = 51.853974$$

The foregoing is the general rising angle of the Cheops pyramid. Researchs claim slightly differing figures since the ancient pyramid's tip is missing.

Another angle in the Cheops pyramid is 41°. The cosinus of this angle, approximated, is:

$$(5.37) \qquad \cos 41.99722395 = 0.74317724479$$

This leads again to the gravity center inside Earth of the Moon-Earth double system (see above):

$$(5.38) \qquad 6366 * 0.74131 = 4730.4746$$

$$(5.39) \qquad 4730.4746 * 81 = 383176$$

383176 is the mean distance between Moon and Earth. It is almost identical with $1 - 1/1.9$ (see above).

Back to the speed of light and the Schumann frequency:

$$(5.40) \qquad 299797 \div 7.8 = 83434.87179$$

$$(5.41) \qquad 83434.87179 \div 81 = 474.5045 = \text{approximately } 1 - 1 \div 1.9.$$

Now we got to the reciprocal value of the Bible code:

$$(5.42) \quad \frac{1}{0.304805} = 3.28078607634$$

Hitoshi Kato: This value must now be differentiated.

$$(5.43) \quad 435^{3.280} \approx 450 \text{ MHz}$$

What is the angular value of the reciprocal Bible code?

$$(5.44) \quad 3.28078607634 \div \{\ln 2 \div (2\pi)\} = 0.11031780007 = \text{curvature constant}$$

$$(5.45) \quad 3.28078607634 \div 0.11031780007 = 29.7394080912$$

I noted that 29 is a key number used by Nostradamus in his astrological calculations. Hitoshi Kato said this number stands for the black hole by Schwarzschildt, a notion which he called „nonsense” (Blödsinn).

$$(5.46) \quad 1 \div 29.7394080912 = 0.0336 = \text{planetary constant, Kepler, third law}$$

The most complicated formula that we went through uses the Euler number e and a complex variable as its logarithm:

$$(5.47) \quad f(r) \ 434e^{\ln(2) \div (2\pi \frac{\pi}{180} 1703.94210)} = 450 \text{ MHz}$$

At the end of the interview we discussed stationary waves. Scalar technology uses these. The Academy of Sciences in Saint Petersburg describes the value of $1/19$ as a gravitation channel and related with the mass of the proton, sufficient details not yet disclosed. Scalar technology is based on this. It uses the mathematics of the prime number 19, convoluted and not always openly visible, to create and to tap stationary waves of nearly infinitely high energy from two separate beams.

Tutorial Three

CHAPTER ELEVEN
ANALYZING THE MUNICH HUM DATA

According to Kato's analysis, the Munich Hum phenomena as measured were created by the GMS 900 cell antenna emissions in the air layer through interaction (interference) with the natural wave system. These Hum phenomena reflect neither the pure natural wave system nor the pure GMS 900 cell antenna emissions, but reflect a strange and hybrid radiation of evidently sickening information content. This is a case example of an unintentional Mini-Matrix weapon.

The Munich Hum phenomena were created by the GMS 900 cell antenna emissions in the air layer through interaction (interference) with the natural wave system. These Hum phenomena reflect neither the pure natural wave system nor the pure GMS 900 cell antenna emissions, but reflect a strange and hybrid radiation of evidently sickening information content. This is a case example of an unintentional Mini-Matrix weapon.

Kato arrives at this finding by analyzing periodic structures in the existing data and by comparing the different data sets through mathematical transformations (Matrix transformations). The data used here are an example (so-called Case A, with five measurements).

The example presents us with a two-phase Matrix system and is *relatively* simple. There are also three-phase and higher multi-phase Matrix systems where the math gets extraordinarily complicated. Such are used for advanced hyper-technology that is not under discussion here.

Here follows the main outline of Kato's analysis of the Munich Hum example, Case A, using the measurements per foregoing chapter:

Hitoshi Kato set forth his analysis in his own words in ten digital documents with numerous tables and formulas on a total of 312 pages. This spanned the time from March 16, 2006 to July 13, 2006. The sequence of documents reflects the rough outline of his analysis: (i) the clear periodic structure fingerprint (March, three short documents), (ii) all data tied to Kato's curvature constant from Umno Alien math and thus to resonance with the natural standing wave system (April, three documents, one of them alone 126 pages), (iii) details and additional considerations, inclusion of sferics in the comparative Matrix analysis (May to July). The summary below follows this sequence of how the analytical ideas unfolded during the thinking process over a five month period, an implicit key sequential element in Kato's pervasion of the subject matter through the eyes of UMMO. In accordance with the number of documents, the summary is hence broken down into ten successive stages of Kato's mathematical Matrix argument:

(Stage 1 overleaf)

Stage 1: March 16:

Measurement data of August 3rd, 2005 are 36 times 604 = 21,744 measurement data.

First seven angular factors that are the n-fold of arctan 3/4:

n	arctan 3/4 * n	degree angle	cos x	sin x
1	0,64350111	36,8698976	0,8	0,6
2	1,28700222	73,7397953	0,28	0,96
3	1,93050333	110,609693	-0,352	0,936
4	2,57400444	147,479591	-0,8432	0,5376
5	3,21750554	184,349488	-0,99712	-0,07584
6	3,86100665	221,219386	-0,752192	-0,658944
7	4,50450776	258,089284	-0,2063872	-0,9784704

Now expanded basic concept of circle function, $\cos^2 x + \sin^2 x = 1$. Then cosine and sine in complex form no longer 0,8+0,6i but product of radius vector of each 10^n , multiplied all cosine and sine values, then the results are: 8+6i, 28+96i, 352+936i, 8432+5376i etc.

n	arctan 3/4 * n	degree angle	r cos x	r sin x	radius	log	decibel	decibel/20
1	0,64350111	36,8698976	8	6	10	1	20	1
2	1,28700222	73,7397953	28	96	100	2	40	2
3	1,93050333	110,609693	-352	936	1000	3	60	3
4	2,57400444	147,479591	-8432	5376	10000	4	80	4
5	3,21750554	184,349488	-99712	-7584	100000	5	100	5
6	3,86100665	221,219386	-752192	-658944	1000000	6	120	6
7	4,50450776	258,089284	-2063872	-9784704	10000000	7	140	7

Definition of

$$(11.1) \quad dB \text{ (Dezibel)} = 20 \log \frac{U_1}{U_2}$$

with relation of variable U; however we do not know (the other variable N describes the relation $n=U \cdot J$ and further $N=J^2 \cdot R=U^2/R$) where the other variable of the Hum can be found.

Kato noticed that, if one traces the sums of the levels of the data periodically, a first indication of lawful behavior is recognizable.

After 40 period lengths the sum of angular factors is 1103,7 and 1107,57173, and in a shorter time span of 1/36 second angular sum 1103,178, which in a measuring unit of 1/36 second is not registered. The duration of a period is not dependent on time but merely on the levels.

4	5	6	7	8
12	13	14	15	16
11,5	13	8,5	9	8,6
0,575	0,65	0,425	0,45	0,43
3,75837404	4,46683592	2,66072506	2,81838293	2,6915348
21,2001911	23,9654335	15,6697065	16,5914539	15,854056
1103,70039	23,9654335	39,63514	56,2265939	72,0806499
40	1	2	3	4
12	13	14	15	16

25,5	16,2	11	11,3	9,8
1,275	0,81	0,55	0,565	0,49
18,8364909	6,45654229	3,54813389	3,672823	3,09029543
47,0091195	29,8646171	20,2784437	20,8314922	18,0662498
1018,53092	1048,39554	1068,67398	1089,50548	1107,57173
36	37	38	39	40

Thus there exists a fixed structure of the Hum measurement data as shown in the following table. Sum of the angular values from $1000 \cdot (\ln(2)/2\pi) - N/\text{ARCTAN } 3/4$ MULTIPLIED WITH 20 RESULTS IN THE DECIBEL VALUE. This cannot change because constant relations persist concerning angular factor x and decibel.

	X	arctan 3/4	y x/arctan 3/4	y*20 decibel	
X=(ln2/2pi)*1000		1103,178 /	36,8698976	29,9208317	598,416633
x-	0,1 =	1103,078 /	36,8698976	29,9181194	598,362388
x-	0,2 =	1102,978 /	36,8698976	29,9154072	598,308144
x-	0,3 =	1102,878 /	36,8698976	29,9126949	598,253899
x-	0,4 =	1102,778 /	36,8698976	29,9099827	598,199654
x-	0,5 =	1102,678 /	36,8698976	29,9072705	598,145409
x-	0,6 =	1102,578 /	36,8698976	29,9045582	598,091164
x-	0,7 =	1102,478 /	36,8698976	29,901846	598,03692
x-	0,8 =	1102,378 /	36,8698976	29,8991337	597,982675
x-	0,9 =	1102,278 /	36,8698976	29,8964215	597,92843
x-	1 =	1102,178 /	36,8698976	29,8937093	597,874185
x-	1,1 =	1102,078 /	36,8698976	29,890997	597,81994
x-	1,2 =	1101,978 /	36,8698976	29,8882848	597,765696
x-	1,3 =	1101,878 /	36,8698976	29,8855725	597,711451
x-	1,4 =	1101,778 /	36,8698976	29,8828603	597,657206
x-	1,5 =	1101,678 /	36,8698976	29,8801481	597,602961
x-	1,6 =	1101,578 /	36,8698976	29,8774358	597,548716

Thus there exists a constant between angular factor and curvature constant for frequency numbers between 5,6 Hz (measurement data of 6,3 Hz) and 20000 Hz of $\ln 2/2\pi$; this applies for a dynamic level value for the periodic form. The two sums (angle sums) as mentioned, **1103,70039 and 1107,57173, result from a regular lawful relation and not coincidentally. Values greater than 1103,178 designate no x-value but an x+ value.**

radius=x-N/(LN(2)/(2*PI()))	A	B	A/B			
	angle	y	Y*20			
	x	arctan 3/4	x/arctan 3/4 decibel			
10000 x=(ln2/2pi)*1000 N	n für N	1103,178 /	36,8698976	29,9208317	598,416633	1,84349488
10004,7353 x+	0,52238924 =	1103,70039 /	36,8698976	29,9350001	598,700002	1,84349488
10039,8279 x+	3,87134 =	1107,57173 /	36,8698976	30,0400001	600,800003	1,84349488

The basic value of the Hum gauge's periodicity is without parameter for time. The first value in the following table provides the following relation:

$$(11.2) \quad \text{periodic angle factor} = \frac{\left(\text{arcustan} \frac{3}{4} \right)}{\frac{\pi}{180}} \times \frac{\text{gauge } 598,416633}{20} = 10000 \times \frac{\ln(2)}{2\pi}$$

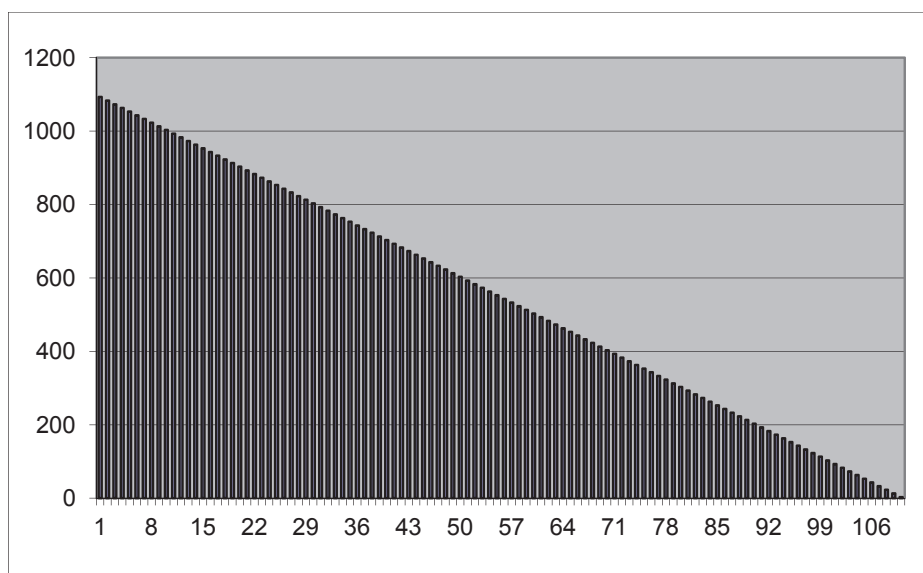
The parameter for time changes from case to case but altogether represents no considerable deviation.

radius=x-N/(LN(2)/(2*PI))	A		B		A/B	
	angle	y	y*20			
	x	arctan 3/4	x/arctan 3/4	decibel		
10000	n für					
x=(ln2/2pi)*1000 N	N	1103,178001 /	36,86989765	29,92083166	598,4166332	1,843494882
9999,093528 x-	0,1 =	1103,078001 /	36,86989765	29,91811942	598,3623884	1,843494882
9998,187056 x-	0,2 =	1102,978001 /	36,86989765	29,91540718	598,3081436	1,843494882
9997,280584 x-	0,3 =	1102,878001 /	36,86989765	29,91269494	598,2538988	1,843494882
9996,374112 x-	0,4 =	1102,778001 /	36,86989765	29,9099827	598,199654	1,843494882
9995,46764 x-	0,5 =	1102,678001 /	36,86989765	29,90727046	598,1454092	1,843494882
9994,561168 x-	0,6 =	1102,578001 /	36,86989765	29,90455822	598,0911644	1,843494882
9993,654696 x-	0,7 =	1102,478001 /	36,86989765	29,90184598	598,0369196	1,843494882
9992,748224 x-	0,8 =	1102,378001 /	36,86989765	29,89913374	597,9826748	1,843494882
9991,841752 x-	0,9 =	1102,278001 /	36,86989765	29,8964215	597,92843	1,843494882
9990,93528 x-	1 =	1102,178001 /	36,86989765	29,89370926	597,8741853	1,843494882
9990,028808 x-	1,1 =	1102,078001 /	36,86989765	29,89099702	597,8199405	1,843494882
9989,122336 x-	1,2 =	1101,978001 /	36,86989765	29,88828478	597,7656957	1,843494882
9988,215864 x-	1,3 =	1101,878001 /	36,86989765	29,88557254	597,7114509	1,843494882
9987,309392 x-	1,4 =	1101,778001 /	36,86989765	29,8828603	597,6572061	1,843494882
9986,40292 x-	1,5 =	1101,678001 /	36,86989765	29,88014806	597,6029613	1,843494882
9985,496448 x-	1,6 =	1101,578001 /	36,86989765	29,87743582	597,5487165	1,843494882
9909,352797 x-	10	1093,178001 /	36,86989765	29,64960769	592,9921538	1,843494882
9818,705594 x-	20	1083,178001 /	36,86989765	29,37838372	587,5676744	1,843494882
9728,058391 x-	30	1073,178001 /	36,86989765	29,10715975	582,143195	1,843494882
9637,411189 x-	40	1063,178001 /	36,86989765	28,83593578	576,7187156	1,843494882
9546,763986 x-	50	1053,178001 /	36,86989765	28,56471181	571,2942362	1,843494882
9456,116783 x-	60	1043,178001 /	36,86989765	28,29348784	565,8697568	1,843494882
9365,46958 x-	70	1033,178001 /	36,86989765	28,02226387	560,4452774	1,843494882
9274,822377 x-	80	1023,178001 /	36,86989765	27,7510399	555,020798	1,843494882
9184,175174 x-	90	1013,178001 /	36,86989765	27,47981593	549,5963187	1,843494882
9093,527972 x-	100	1003,178001 /	36,86989765	27,20859196	544,1718393	1,843494882
9002,880769 x-	110	993,1780008 /	36,86989765	26,93736799	538,7473599	1,843494882
8912,233566 x-	120	983,1780008 /	36,86989765	26,66614402	533,3228805	1,843494882
8821,586363 x-	130	973,1780008 /	36,86989765	26,39492005	527,8984011	1,843494882
8730,93916 x-	140	963,1780008 /	36,86989765	26,12369608	522,4739217	1,843494882
8640,291957 x-	150	953,1780008 /	36,86989765	25,85247211	517,0494423	1,843494882
8549,644755 x-	160	943,1780008 /	36,86989765	25,58124815	511,6249629	1,843494882
8458,997552 x-	170	933,1780008 /	36,86989765	25,31002418	506,2004835	1,843494882
8368,350349 x-	180	923,1780008 /	36,86989765	25,03880021	500,7760041	1,843494882
8277,703146 x-	190	913,1780008 /	36,86989765	24,76757624	495,3515247	1,843494882
8187,055943 x-	200	903,1780008 /	36,86989765	24,49635227	489,9270453	1,843494882
8096,40874 x-	210	893,1780008 /	36,86989765	24,2251283	484,5025659	1,843494882
8005,761538 x-	220	883,1780008 /	36,86989765	23,95390433	479,0780865	1,843494882
7915,114335 x-	230	873,1780008 /	36,86989765	23,68268036	473,6536072	1,843494882
7824,467132 x-	240	863,1780008 /	36,86989765	23,41145639	468,2291278	1,843494882
7733,819929 x-	250	853,1780008 /	36,86989765	23,14023242	462,8046484	1,843494882
7643,172726 x-	260	843,1780008 /	36,86989765	22,86900845	457,380169	1,843494882
7552,525523 x-	270	833,1780008 /	36,86989765	22,59778448	451,9556896	1,843494882
7461,878321 x-	280	823,1780008 /	36,86989765	22,32656051	446,5312102	1,843494882
7371,231118 x-	290	813,1780008 /	36,86989765	22,05533654	441,1067308	1,843494882
7280,583915 x-	300	803,1780008 /	36,86989765	21,78411257	435,6822514	1,843494882
7189,936712 x-	310	793,1780008 /	36,86989765	21,5128886	430,257772	1,843494882
7099,289509 x-	320	783,1780008 /	36,86989765	21,24166463	424,8332926	1,843494882
7008,642306 x-	330	773,1780008 /	36,86989765	20,97044066	419,4088132	1,843494882
6917,995104 x-	340	763,1780008 /	36,86989765	20,69921669	413,9843338	1,843494882
6827,347901 x-	350	753,1780008 /	36,86989765	20,42799272	408,5598544	1,843494882

6736,700698 x-	360	36	743,1780008 /	36,86989765	20,15676875	403,135375	1,843494882
6646,053495 x-	370	37	733,1780008 /	36,86989765	19,88554478	397,7108957	1,843494882
6555,406292 x-	380	38	723,1780008 /	36,86989765	19,61432081	392,2864163	1,843494882
6464,759089 x-	390	39	713,1780008 /	36,86989765	19,34309684	386,8619369	1,843494882
6374,111887 x-	400	40	703,1780008 /	36,86989765	19,07187287	381,4374575	1,843494882
6283,464684 x-	410	41	693,1780008 /	36,86989765	18,8006489	376,0129781	1,843494882
6192,817481 x-	420	42	683,1780008 /	36,86989765	18,52942493	370,5884987	1,843494882
6102,170278 x-	430	43	673,1780008 /	36,86989765	18,25820096	365,1640193	1,843494882
6011,523075 x-	440	44	663,1780008 /	36,86989765	17,98697699	359,7395399	1,843494882
5920,875872 x-	450	45	653,1780008 /	36,86989765	17,71575303	354,3150605	1,843494882
5830,22867 x-	460	46	643,1780008 /	36,86989765	17,44452906	348,8905811	1,843494882
5739,581467 x-	470	47	633,1780008 /	36,86989765	17,17330509	343,4661017	1,843494882
5648,934264 x-	480	48	623,1780008 /	36,86989765	16,90208112	338,0416223	1,843494882
5558,287061 x-	490	49	613,1780008 /	36,86989765	16,63085715	332,6171429	1,843494882
5467,639858 x-	500	50	603,1780008 /	36,86989765	16,35963318	327,1926635	1,843494882
5376,992655 x-	510	51	593,1780008 /	36,86989765	16,08840921	321,7681841	1,843494882
5286,345452 x-	520	52	583,1780008 /	36,86989765	15,81718524	316,3437048	1,843494882
5195,69825 x-	530	53	573,1780008 /	36,86989765	15,54596127	310,9192254	1,843494882
5105,051047 x-	540	54	563,1780008 /	36,86989765	15,2747373	305,494746	1,843494882
5014,403844 x-	550	55	553,1780008 /	36,86989765	15,00351333	300,0702666	1,843494882
4923,756641 x-	560	56	543,1780008 /	36,86989765	14,73228936	294,6457872	1,843494882
4833,109438 x-	570	57	533,1780008 /	36,86989765	14,46106539	289,2213078	1,843494882
4742,462235 x-	580	58	523,1780008 /	36,86989765	14,18984142	283,7968284	1,843494882
4651,815033 x-	590	59	513,1780008 /	36,86989765	13,91861745	278,372349	1,843494882
4561,16783 x-	600	60	503,1780008 /	36,86989765	13,64739348	272,9478696	1,843494882
4470,520627 x-	610	61	493,1780008 /	36,86989765	13,37616951	267,5233902	1,843494882
4379,873424 x-	620	62	483,1780008 /	36,86989765	13,10494554	262,0989108	1,843494882
4289,226221 x-	630	63	473,1780008 /	36,86989765	12,83372157	256,6744314	1,843494882
4198,579018 x-	640	64	463,1780008 /	36,86989765	12,5624976	251,249952	1,843494882
4107,931816 x-	650	65	453,1780008 /	36,86989765	12,29127363	245,8254726	1,843494882
4017,284613 x-	660	66	443,1780008 /	36,86989765	12,02004966	240,4009933	1,843494882
3926,63741 x-	670	67	433,1780008 /	36,86989765	11,74882569	234,9765139	1,843494882
3835,990207 x-	680	68	423,1780008 /	36,86989765	11,47760172	229,5520345	1,843494882
3745,343004 x-	690	69	413,1780008 /	36,86989765	11,20637775	224,1275551	1,843494882
3654,695801 x-	700	70	403,1780008 /	36,86989765	10,93515378	218,7030757	1,843494882
3564,048599 x-	710	71	393,1780008 /	36,86989765	10,66392981	213,2785963	1,843494882
3473,401396 x-	720	72	383,1780008 /	36,86989765	10,39270584	207,8541169	1,843494882
3382,754193 x-	730	73	373,1780008 /	36,86989765	10,12148188	202,4296375	1,843494882
3292,10699 x-	740	74	363,1780008 /	36,86989765	9,850257906	197,0051581	1,843494882
3201,459787 x-	750	75	353,1780008 /	36,86989765	9,579033936	191,5806787	1,843494882
3110,812584 x-	760	76	343,1780008 /	36,86989765	9,307809966	186,1561993	1,843494882
3020,165382 x-	770	77	333,1780008 /	36,86989765	9,036585997	180,7317199	1,843494882
2929,518179 x-	780	78	323,1780008 /	36,86989765	8,765362027	175,3072405	1,843494882
2838,870976 x-	790	79	313,1780008 /	36,86989765	8,494138057	169,8827611	1,843494882
2748,223773 x-	800	80	303,1780008 /	36,86989765	8,222914088	164,4582818	1,843494882
2657,57657 x-	810	81	293,1780008 /	36,86989765	7,951690118	159,0338024	1,843494882
2566,929367 x-	820	82	283,1780008 /	36,86989765	7,680466148	153,609323	1,843494882
2476,282165 x-	830	83	273,1780008 /	36,86989765	7,409242179	148,1848436	1,843494882
2385,634962 x-	840	84	263,1780008 /	36,86989765	7,138018209	142,7603642	1,843494882
2294,987759 x-	850	85	253,1780008 /	36,86989765	6,866794239	137,3358848	1,843494882
2204,340556 x-	860	86	243,1780008 /	36,86989765	6,59557027	131,9114054	1,843494882
2113,693353 x-	870	87	233,1780008 /	36,86989765	6,3243463	126,486926	1,843494882
2023,04615 x-	880	88	223,1780008 /	36,86989765	6,05312233	121,0624466	1,843494882
1932,398948 x-	890	89	213,1780008 /	36,86989765	5,781898361	115,6379672	1,843494882
1841,751745 x-	900	90	203,1780008 /	36,86989765	5,510674391	110,2134878	1,843494882
1751,104542 x-	910	91	193,1780008 /	36,86989765	5,239450422	104,7890084	1,843494882

1660,457339 x-	920	92	183,1780008 /	36,86989765	4,968226452	99,36452904	1,843494882
1569,810136 x-	930	93	173,1780008 /	36,86989765	4,697002482	93,94004965	1,843494882
1479,162933 x-	940	94	163,1780008 /	36,86989765	4,425778513	88,51557025	1,843494882
1388,515731 x-	950	95	153,1780008 /	36,86989765	4,154554543	83,09109086	1,843494882
1297,868528 x-	960	96	143,1780008 /	36,86989765	3,883330573	77,66661147	1,843494882
1207,221325 x-	970	97	133,1780008 /	36,86989765	3,612106604	72,24213207	1,843494882
1116,574122 x-	980	98	123,1780008 /	36,86989765	3,340882634	66,81765268	1,843494882
1025,926919 x-	990	99	113,1780008 /	36,86989765	3,069658664	61,39317329	1,843494882
935,2797163 x-	1000	100	103,1780008 /	36,86989765	2,798434695	55,96869389	1,843494882
844,6325135 x-	1010	101	93,17800076 /	36,86989765	2,527210725	50,5442145	1,843494882
753,9853107 x-	1020	102	83,17800076 /	36,86989765	2,255986755	45,11973511	1,843494882
663,3381078 x-	1030	103	73,17800076 /	36,86989765	1,984762786	39,69525572	1,843494882
572,690905 x-	1040	104	63,17800076 /	36,86989765	1,713538816	34,27077632	1,843494882
482,0437022 x-	1050	105	53,17800076 /	36,86989765	1,442314846	28,84629693	1,843494882
391,3964993 x-	1060	106	43,17800076 /	36,86989765	1,171090877	23,42181754	1,843494882
300,7492965 x-	1070	107	33,17800076 /	36,86989765	0,899866907	17,99733814	1,843494882
210,1020937 x-	1080	108	23,17800076 /	36,86989765	0,628642938	12,57285875	1,843494882
119,4548908 x-	1090	109	13,17800076 /	36,86989765	0,357418968	7,148379358	1,843494882
28,80768798 x-	1100	110	3,178000763 /	36,86989765	0,086194998	1,723899965	1,843494882

The decline of the value x represents, as the diagram shows, a straight line since time as a factor of the Hum is not considered.



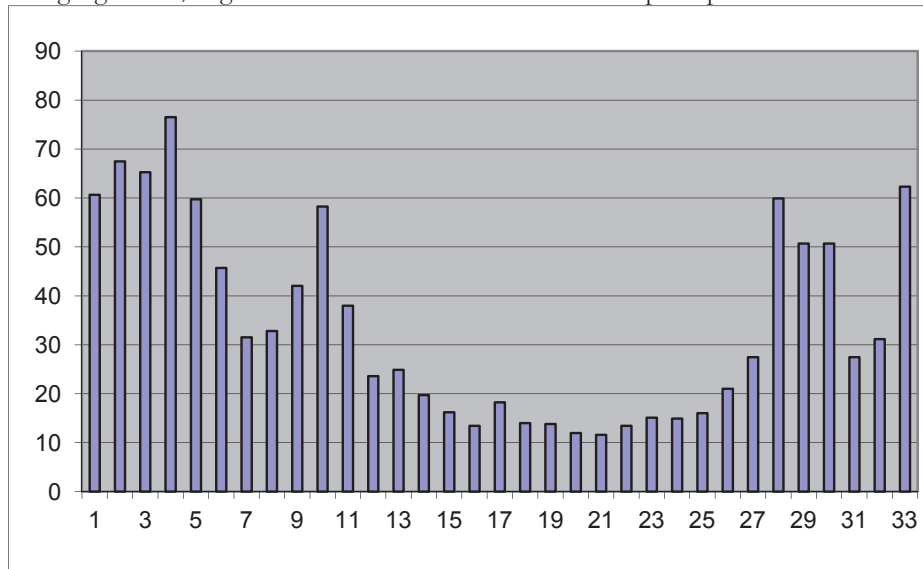
radius=x-N/ (ln2/2pi)		angle x		y x/arctan 3/4	y*20 decibel
10000	n für		arctan 3/4		
x=(ln2/2pi)*1000 N	N	1103,178 /	36,8698976	29,9208317	598,416633
9999,09353 x-	0,1 =	1103,078 /	36,8698976	29,9181194	598,362388
9998,18706 x-	0,2 =	1102,978 /	36,8698976	29,9154072	598,308144
9997,28058 x-	0,3 =	1102,878 /	36,8698976	29,9126949	598,253899
9996,37411 x-	0,4 =	1102,778 /	36,8698976	29,9099827	598,199654
9995,46764 x-	0,5 =	1102,678 /	36,8698976	29,9072705	598,145409
9994,56117 x-	0,6 =	1102,578 /	36,8698976	29,9045582	598,091164
9993,6547 x-	0,7 =	1102,478 /	36,8698976	29,901846	598,03692
9992,74822 x-	0,8 =	1102,378 /	36,8698976	29,8991337	597,982675

9991,84175 x-	0,9 =		1102,278 /	36,8698976	29,8964215	597,92843
9990,93528 x-	1 =		1102,178 /	36,8698976	29,8937093	597,874185
9990,02881 x-	1,1 =		1102,078 /	36,8698976	29,890997	597,81994
9989,12234 x-	1,2 =		1101,978 /	36,8698976	29,8882848	597,765696
9988,21586 x-	1,3 =		1101,878 /	36,8698976	29,8855725	597,711451
9987,30939 x-	1,4 =		1101,778 /	36,8698976	29,8828603	597,657206
9986,40292 x-	1,5 =		1101,678 /	36,8698976	29,8801481	597,602961
9985,49645 x-	1,6 =		1101,578 /	36,8698976	29,8774358	597,548716
9909,3528 x-	10	1	1093,178 /	36,8698976	29,6496077	592,992154
9818,70559 x-	20	2	1083,178 /	36,8698976	29,3783837	587,567674
9728,05839 x-	30	3	1073,178 /	36,8698976	29,1071598	582,143195
9637,41119 x-	40	4	1063,178 /	36,8698976	28,8359358	576,718716
9546,76399 x-	50	5	1053,178 /	36,8698976	28,5647118	571,294236
9456,11678 x-	60	6	1043,178 /	36,8698976	28,2934878	565,869757
9365,46958 x-	70	7	1033,178 /	36,8698976	28,0222639	560,445277
9274,82238 x-	80	8	1023,178 /	36,8698976	27,7510399	555,020798
9184,17517 x-	90	9	1013,178 /	36,8698976	27,4798159	549,596319
9093,52797 x-	100	10	1003,178 /	36,8698976	27,208592	544,171839
9002,88077 x-	110	11	993,178001 /	36,8698976	26,937368	538,74736
8912,23357 x-	120	12	983,178001 /	36,8698976	26,666144	533,32288
8821,58636 x-	130	13	973,178001 /	36,8698976	26,3949201	527,898401
8730,93916 x-	140	14	963,178001 /	36,8698976	26,1236961	522,473922
8640,29196 x-	150	15	953,178001 /	36,8698976	25,8524721	517,049442
8549,64475 x-	160	16	943,178001 /	36,8698976	25,5812481	511,624963
8458,99755 x-	170	17	933,178001 /	36,8698976	25,3100242	506,200484
8368,35035 x-	180	18	923,178001 /	36,8698976	25,0388002	500,776004
8277,70315 x-	190	19	913,178001 /	36,8698976	24,7675762	495,351525
8187,05594 x-	200	20	903,178001 /	36,8698976	24,4963523	489,927045
8096,40874 x-	210	21	893,178001 /	36,8698976	24,2251283	484,502566
8005,76154 x-	220	22	883,178001 /	36,8698976	23,9539043	479,078087
7915,11433 x-	230	23	873,178001 /	36,8698976	23,6826804	473,653607
7824,46713 x-	240	24	863,178001 /	36,8698976	23,4114564	468,229128
7733,81993 x-	250	25	853,178001 /	36,8698976	23,1402324	462,804648
7643,17273 x-	260	26	843,178001 /	36,8698976	22,8690084	457,380169
7552,52552 x-	270	27	833,178001 /	36,8698976	22,5977845	451,95569
7461,87832 x-	280	28	823,178001 /	36,8698976	22,3265605	446,53121
7371,23112 x-	290	29	813,178001 /	36,8698976	22,0553365	441,106731
7280,58391 x-	300	30	803,178001 /	36,8698976	21,7841126	435,682251
7189,93671 x-	310	31	793,178001 /	36,8698976	21,5128886	430,257772
7099,28951 x-	320	32	783,178001 /	36,8698976	21,2416646	424,833293
7008,64231 x-	330	33	773,178001 /	36,8698976	20,9704407	419,408813
6917,9951 x-	340	34	763,178001 /	36,8698976	20,6992167	413,984334
6827,3479 x-	350	35	753,178001 /	36,8698976	20,4279927	408,559854
6736,7007 x-	360	36	743,178001 /	36,8698976	20,1567688	403,135375
6646,0535 x-	370	37	733,178001 /	36,8698976	19,8855448	397,710896
6555,40629 x-	380	38	723,178001 /	36,8698976	19,6143208	392,286416
6464,75909 x-	390	39	713,178001 /	36,8698976	19,3430968	386,861937
6374,11189 x-	400	40	703,178001 /	36,8698976	19,0718729	381,437457
6283,46468 x-	410	41	693,178001 /	36,8698976	18,8006489	376,012978
6192,81748 x-	420	42	683,178001 /	36,8698976	18,5294249	370,588499
6102,17028 x-	430	43	673,178001 /	36,8698976	18,258201	365,164019
6011,52308 x-	440	44	663,178001 /	36,8698976	17,986977	359,73954
5920,87587 x-	450	45	653,178001 /	36,8698976	17,715753	354,315061
5830,22867 x-	460	46	643,178001 /	36,8698976	17,4445291	348,890581
5739,58147 x-	470	47	633,178001 /	36,8698976	17,1733051	343,466102
5648,93426 x-	480	48	623,178001 /	36,8698976	16,9020811	338,041622

5558,28706 x-	490	49	613,178001 /	36,8698976	16,6308571	332,617143
5467,63986 x-	500	50	603,178001 /	36,8698976	16,3596332	327,192664
5376,99266 x-	510	51	593,178001 /	36,8698976	16,0884092	321,768184
5286,34545 x-	520	52	583,178001 /	36,8698976	15,8171852	316,343705
5195,69825 x-	530	53	573,178001 /	36,8698976	15,5459613	310,919225
5105,05105 x-	540	54	563,178001 /	36,8698976	15,2747373	305,494746
5014,40384 x-	550	55	553,178001 /	36,8698976	15,0035133	300,070267
4923,75664 x-	560	56	543,178001 /	36,8698976	14,7322894	294,645787
4833,10944 x-	570	57	533,178001 /	36,8698976	14,4610654	289,221308
4742,46224 x-	580	58	523,178001 /	36,8698976	14,1898414	283,796828
4651,81503 x-	590	59	513,178001 /	36,8698976	13,9186175	278,372349
4561,16783 x-	600	60	503,178001 /	36,8698976	13,6473935	272,94787
4470,52063 x-	610	61	493,178001 /	36,8698976	13,3761695	267,52339
4379,87342 x-	620	62	483,178001 /	36,8698976	13,1049455	262,098911
4289,22622 x-	630	63	473,178001 /	36,8698976	12,8337216	256,674431
4198,57902 x-	640	64	463,178001 /	36,8698976	12,5624976	251,249952
4107,93182 x-	650	65	453,178001 /	36,8698976	12,2912736	245,825473
4017,28461 x-	660	66	443,178001 /	36,8698976	12,0200497	240,400993
3926,63741 x-	670	67	433,178001 /	36,8698976	11,7488257	234,976514
3835,99021 x-	680	68	423,178001 /	36,8698976	11,4776017	229,552034
3745,343 x-	690	69	413,178001 /	36,8698976	11,2063778	224,127555
3654,6958 x-	700	70	403,178001 /	36,8698976	10,9351538	218,703076
3564,0486 x-	710	71	393,178001 /	36,8698976	10,6639298	213,278596
3473,4014 x-	720	72	383,178001 /	36,8698976	10,3927058	207,854117
3382,75419 x-	730	73	373,178001 /	36,8698976	10,1214819	202,429638
3292,10699 x-	740	74	363,178001 /	36,8698976	9,85025791	197,005158
3201,45979 x-	750	75	353,178001 /	36,8698976	9,57903394	191,580679
3110,81258 x-	760	76	343,178001 /	36,8698976	9,30780997	186,156199
3020,16538 x-	770	77	333,178001 /	36,8698976	9,036586	180,73172
2929,51818 x-	780	78	323,178001 /	36,8698976	8,76536203	175,307241
2838,87098 x-	790	79	313,178001 /	36,8698976	8,49413806	169,882761
2748,22377 x-	800	80	303,178001 /	36,8698976	8,22291409	164,458282
2657,57657 x-	810	81	293,178001 /	36,8698976	7,95169012	159,033802
2566,92937 x-	820	82	283,178001 /	36,8698976	7,68046615	153,609323
2476,28216 x-	830	83	273,178001 /	36,8698976	7,40924218	148,184844
2385,63496 x-	840	84	263,178001 /	36,8698976	7,13801821	142,760364
2294,98776 x-	850	85	253,178001 /	36,8698976	6,86679424	137,335885
2204,34056 x-	860	86	243,178001 /	36,8698976	6,59557027	131,911405
2113,69335 x-	870	87	233,178001 /	36,8698976	6,3243463	126,486926
2023,04615 x-	880	88	223,178001 /	36,8698976	6,05312233	121,062447
1932,39895 x-	890	89	213,178001 /	36,8698976	5,78189836	115,637967
1841,75174 x-	900	90	203,178001 /	36,8698976	5,51067439	110,213488
1751,10454 x-	910	91	193,178001 /	36,8698976	5,23945042	104,789008
1660,45734 x-	920	92	183,178001 /	36,8698976	4,96822645	99,364529
1569,81014 x-	930	93	173,178001 /	36,8698976	4,69700248	93,9400496
1479,16293 x-	940	94	163,178001 /	36,8698976	4,42577851	88,5155703
1388,51573 x-	950	95	153,178001 /	36,8698976	4,15455454	83,0910909
1297,86853 x-	960	96	143,178001 /	36,8698976	3,88333057	77,6666115
1207,22132 x-	970	97	133,178001 /	36,8698976	3,6121066	72,2421321
1116,57412 x-	980	98	123,178001 /	36,8698976	3,34088263	66,8176527
1025,92692 x-	990	99	113,178001 /	36,8698976	3,06965866	61,3931733
935,279716 x-	1000	100	103,178001 /	36,8698976	2,79843469	55,9686939
844,632514 x-	1010	101	93,1780008 /	36,8698976	2,52721073	50,5442145
753,985311 x-	1020	102	83,1780008 /	36,8698976	2,25598676	45,1197351
663,338108 x-	1030	103	73,1780008 /	36,8698976	1,98476279	39,6952557
572,690905 x-	1040	104	63,1780008 /	36,8698976	1,71353882	34,2707763

482,043702 x-	1050	105	53,1780008 /	36,8698976	1,44231485	28,8462969
391,396499 x-	1060	106	43,1780008 /	36,8698976	1,17109088	23,4218175
300,749296 x-	1070	107	33,1780008 /	36,8698976	0,89986691	17,9973381
210,102094 x-	1080	108	23,1780008 /	36,8698976	0,62864294	12,5728588
119,454891 x-	1090	109	13,1780008 /	36,8698976	0,35741897	7,14837936
28,807688 x-	1100	110	3,17800076 /	36,8698976	0,086195	1,72389997

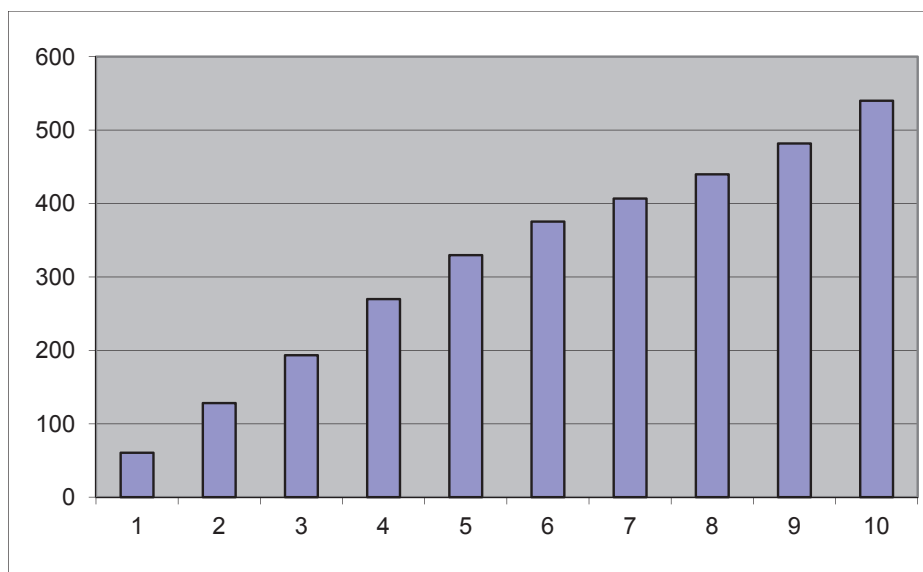
The gauge value/angular value of the Hum is similar to the principle of the stereo effect:

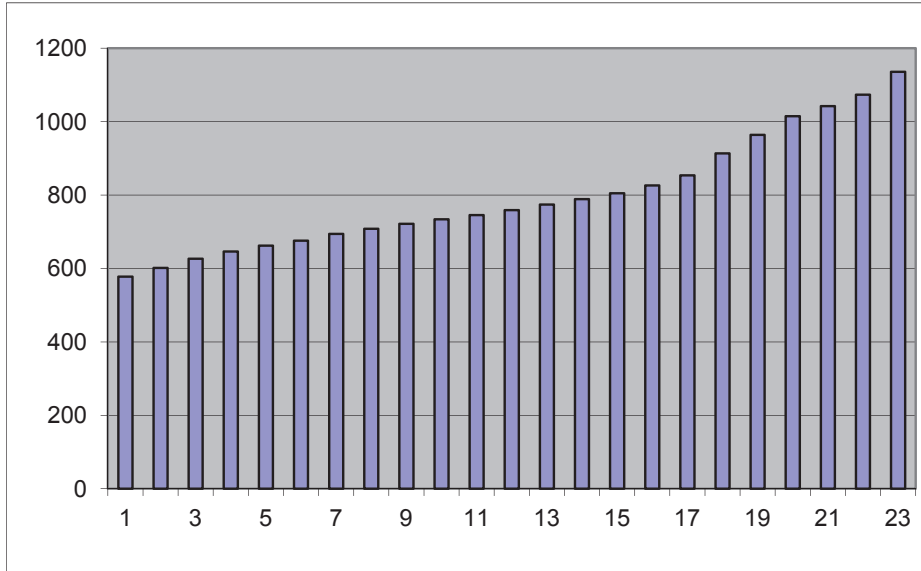


All gauge data in a second have a shape, in the middle the gauge value declines. Half of the angular values is 551,59.

First half for sum of angles comprizes 10 steps.

60,6509816	128,122894	193,3826132	269,887651	329,616885
1	2	3	4	5
375,335558	406,859321	439,673529	481,705213	539,959651
6	7	8	9	10





Second half, however, comprizes 23 steps:

577,935646	601,53238	626,419561	646,144956	662,367711
675,825224	694,075823	708,086384	721,912596	733,895313
745,50933	758,966843	774,083501	789,01581	805,054215
826,070057	853,538131	913,451714	964,147823	1014,84393
1042,31201	1073,46707	1135,7772		

$$(11.3) \quad \left(\frac{1}{36}\right) \cdot 10 = 0.278 \quad \blacksquare$$

First segment of time is around 0,2777... seconds for stretch of 551,589°.

Second segment of Hum's period time is around 0,6396... seconds for stretch of 551,589°.

$$(11.4) \quad \left(\frac{1}{36}\right) \cdot 10 \cdot \ln(10) = 0.64$$

.63960697027612380112

Relation of first segment of Hum period to second segment of Hum period is $\log x / \ln x$ (module):

$$(11.5) \quad \frac{\left[\left(\frac{1}{36}\right) \cdot 10\right]}{\left[\left(\frac{1}{36}\right) \cdot 10 \cdot \ln(10)\right]} = 0.434 \quad \blacksquare$$

Same value in different decadic dimension between international unit of computer frequency with curvature of 0,304805:

$$(11.6)$$

$$\int_0^1 (450 \cdot 10^6)^{0.304805} dx = 434.053 \quad \blacksquare$$

Stage 2: March 17:

Congruence between GMS 900 system and Kato's analysis of 21744 measured Hum data. Thus perpetrator of Hum is GMS 900 cell phone system.

Between gauge value and constant distance 1 bit transmission is ca. 1,1 km, and a change of the timing advance by one equals a distance of ca. 550 m. This is in accordance with the value found by Kato per his diagram as constant angular values of Hum gauge data of 551° and 1103,178°.

The cell phone system data that were given to Kato show an overall data transfer rate of 271 kbit/s. Given this, a relation between speed of light 300000 km divided by 1103,178m of 271941,60 bit is implied.

$$\frac{300000}{\frac{\ln(2)}{2\pi} \cdot 10} dx =$$

(11.7) 271941.6085096316285

1 Bit of 1,103178 km moves in one second 271941,6 times, in accordance with the speed of light. Please note that Hum data and cell phone function for communication are on two different levels.

Nevertheless strange, distance for bit value of cell phone – same numeric values for gauge in different time periods occur.

						distance	distance/ 40000 km		
byte	bit	1,103178 km/s *bit	/ km		bit	/ Km		c/distance	distance/c
1	8	8,82542401	1,103178 *		8	= 8,82542401	0,00022064	33992,7011	2,9418E-05
2	16	17,650848	1,103178 *		16	= 17,650848	0,00044127	16996,3505	5,8836E-05
3	24	26,476272	1,103178 *		24	= 26,476272	0,00066191	11330,9004	8,8254E-05
4	32	35,301696	1,103178 *		32	= 35,301696	0,00088254	8498,17527	0,00011767
5	40	44,12712	1,103178 *		40	= 44,12712	0,00110318	6798,54021	0,00014709
6	48	52,952544	1,103178 *		48	= 52,952544	0,00132381	5665,45018	0,00017651
7	56	61,777968	1,103178 *		56	= 61,777968	0,00154445	4856,10015	0,00020593
8	64	70,603392	1,103178 *		64	= 70,603392	0,00176508	4249,08763	0,00023534
9	72	79,4288161	1,103178 *		72	= 79,4288161	0,00198572	3776,96678	0,00026476
10	80	88,2542401	1,103178 *		80	= 88,2542401	0,00220636	3399,27011	0,00029418
11	88	97,0796641	1,103178 *		88	= 97,0796641	0,00242699	3090,24555	0,0003236
12	96	105,905088	1,103178 *		96	= 105,905088	0,00264763	2832,72509	0,00035302
1250	10000	11031,78	1,103178 *		10000	= 11031,78	0,2757945	27,1941609	0,0367726
2500	20000	22063,56	1,103178 *		20000	= 22063,56	0,551589	13,5970804	0,0735452
3750	30000	33095,34	1,103178 *		30000	= 33095,34	0,8273835	9,06472028	0,1103178
5000	40000	44127,12	1,103178 *		40000	= 44127,12	1,103178	6,79854021	0,1470904
6250	50000	55158,9	1,103178 *		50000	= 55158,9	1,3789725	5,43883217	0,183863
7500	60000	66190,68	1,103178 *		60000	= 66190,68	1,654767	4,53236014	0,2206356
8750	70000	77222,4601	1,103178 *		70000	= 77222,4601	1,9305615	3,88488012	0,2574082
10000	80000	88254,2401	1,103178 *		80000	= 88254,2401	2,206356	3,39927011	0,2941808
11250	90000	99286,0201	1,103178 *		90000	= 99286,0201	2,4821505	3,02157343	0,3309534

12500	100000	110317,8	1,103178	*	100000	=	110317,8	2,757945	2,71941609	0,367726
13750	110000	121349,58	1,103178	*	110000	=	121349,58	3,0337395	2,47219644	0,4044986
15000	120000	132381,36	1,103178	*	120000	=	132381,36	3,309534	2,26618007	0,4412712
16250	130000	143413,14	1,103178	*	130000	=	143413,14	3,5853285	2,09185853	0,4780438
17500	140000	154444,92	1,103178	*	140000	=	154444,92	3,861123	1,94244006	0,5148164
18750	150000	165476,7	1,103178	*	150000	=	165476,7	4,1369175	1,81294406	0,551589
20000	160000	176508,48	1,103178	*	160000	=	176508,48	4,412712	1,69963505	0,5883616
21250	170000	187540,26	1,103178	*	170000	=	187540,26	4,6885065	1,59965652	0,6251342
22500	180000	198572,04	1,103178	*	180000	=	198572,04	4,964301	1,51078671	0,6619068
23750	190000	209603,82	1,103178	*	190000	=	209603,82	5,2400955	1,43127162	0,6986794
25000	200000	220635,6	1,103178	*	200000	=	220635,6	5,51589	1,35970804	0,735452
26250	210000	231667,38	1,103178	*	210000	=	231667,38	5,7916845	1,29496004	0,7722246
27500	220000	242699,16	1,103178	*	220000	=	242699,16	6,067479	1,23609822	0,8089972
28750	230000	253730,94	1,103178	*	230000	=	253730,94	6,3432735	1,18235482	0,8457698
30000	240000	264762,72	1,103178	*	240000	=	264762,72	6,619068	1,13309004	0,8825424
31250	250000	275794,5	1,103178	*	250000	=	275794,5	6,8948625	1,08776643	0,919315
32500	260000	286826,28	1,103178	*	260000	=	286826,28	7,170657	1,04592926	0,9560876
33750	270000	297858,06	1,103178	*	270000	=	297858,06	7,44645151	1,00719114	0,9928602
33992, 7011	271941, 609	300000	1,103178	*	271941, 6085	=	300000	7,5	1	1

Exact measurement data of Hum hat per line 36 gauge values, which means 1/10 of a second. 1 second thus has 360 measured gauge values.

period:	time:	LfF(min)
0	(2005-08-03 23:30:50.000)	
1	(2005-08-03 23:30:50.100)	
2	(2005-08-03 23:30:50.200)	
3	(2005-08-03 23:30:50.300)	
4	(2005-08-03 23:30:50.400)	
5	(2005-08-03 23:30:50.500)	
6	(2005-08-03 23:30:50.600)	
7	(2005-08-03 23:30:50.700)	
8	(2005-08-03 23:30:50.800)	
9	(2005-08-03 23:30:50.900)	
10	(2005-08-03 23:30:51.000)	

Stage 3: March 23:

21744 measurement data show clearly that the Hum is caused by the bit transmission in the air of the GMS 900.

Norsonic measuring device itself uses the same bit transmission as GMS with rounded number values, but not bit numbers but gauge values in decibel unit.

1 bit transmission lets recognize presently totally unknown space curvature of $\ln 2/2\pi$ to speed of light, as shown for every 10th value of Norsonic that is marked c. Where Norsonic is marked c, transmission is $c/\ln 2/2\pi$ bit.

Norsonic data are first rounded to 36 sections, for the reason of the 1000fold of 1 bit transmission time AT advance time.

However, scrutiny recognizes fixed structure of 33 sections, not 36 sections, if one reads time section 33, where only position where all gauge values have numerical value 11 to the left of the comma.

And largest gauge value is on section 10.

Thus relation 10 to 23 is present. Preliminarily I name basic structure as (10:23)+3.

Shape of gauge values is thus outright differential geometry of subnormal and subtangent length, all decibel values of $\log x$ divided by $\ln x$, and subtangent $\ln x$ divided by $\log x$ regularly in 90 degree limited shape.

Gauge numeric value $2*(1/1000)*c$ comes with 1000fold of bit transmission of 1103.

$$(11.8) \quad \text{periodic angular value} = \frac{\left(\arctan \frac{3}{4} \right)}{\frac{\pi}{180}} \times \frac{\text{gauge } 598,416633}{20} = 10000 \times \frac{\ln(2)}{2\pi}$$

Gauge values show Hum does not take place during communication, since gauge value during conversations would reflect gauge value of conversations.

My [Hitoshi Kato's] finding is that the Compton wave length of the proton (and nearly identical the neutron) is a mass-less superluminal speed of standing wave. This has the same curvature value with the bit transmission of the GMS 900 system. This causes resonance with the standing wave (natural wave system). My concern is that all LAN wireless data transmission of computers and of other cell phone systems could have the same bit transmission with $10*\ln 2/2\pi$ kilometers. I have reviewed no technical data except GMS 900 to date.

Despite minute dimension, data indicate enduring and extremely intense vortex/tornado movement. This reminds me of the E.U. directive to protect against waves that lead to ionised electromagnetic fields and that lead on to an unknown dimension and plasma fields.

Symptoms of the effects of the Hum have already been described: delusion of the senses, shaking of the ground, classification as plasma wave disease because so-called e-smog symptoms gradually are exceeding a medically heretofore not known level.

I am familiar with a report from Texas, U.S.A., mentioning the same pain formation in the back of the head of plasma wave victims, just like some Hum victims in Munich report.

According to research of the Academy of Sciences in St. Petersburg, the standing information wave is based directly on the amino acids of the genetic DNA/RNA structure and its standing wave. If this is so

then the Hum is destroying the fundamental root of our biological building blocks through fine continuous resonance with the bit transmission in the air.

Stage 4: April 16:

Hints and clues that there has already been resonance with the natural standing wave through artificially created gravitational curvature through mobile phone (GMS 900).

New aspect regarding resonance row in the ELF (extreme low frequency) field for the Hum: Frequency number with arithmetic sum values form significant marked dynamic strength compared with the gauge values of the preceding and subsequent frequency numbers.

What dangerous effects an abuse of this gravitational curvature constant can be can be recognized hier. The curvature constant was converted to tangent 2, precisely coinciding with Advance Timing GMS cell phone system.

$$(11.9) \quad \left[\int_0^1 \frac{\frac{\text{atan}(2)}{\frac{\pi}{180}} \cdot \left(5 \cdot \frac{\ln(2)}{2 \cdot \pi} \right) dx}{\frac{\pi}{180}} \right] = 34.99 \blacksquare$$

Convert additionally Timing Advance GMS Handy Funktion from 63 to angle value of arcustan 2 and multiply curvature constant with radius length of 5 kilometers, this results exactly in a pertinent range of the cell phone system waves of 35 km.

$$(11.10) \quad \left[\int_0^1 \frac{\text{atan}(2)}{\left(\frac{\pi}{180} \right)} dx \right] = 63.435 \blacksquare$$

$$(11.11) \quad \left[\int_0^1 10 \cdot \frac{\ln(2)}{2 \cdot \pi} \cdot \frac{\frac{\text{atan}(2)}{2}}{\frac{\pi}{180}} dx \right] = 34.99 \blacksquare$$

If additionally an expansion in the same time of 3.7 microseconds takes place, then the GMS cell phone system already uses the 1000fold speed of light through standing wave every day in every street (unclear complicated hypothesis, partly confirmed through experiments). The question arises here whether the GMS and UMTS systems of cell antenna masts convey information inside a standing wave with the 31,7fold of the speed of light.

$$(11.12) \quad \left[\int_0^1 \frac{\frac{\text{atan}(2)}{2}}{\left(\frac{\pi}{180} \right)} dx \right] = 31.717 \blacksquare$$

$$(11.13) \quad v = 2997.92458 \cdot 10^5 \sqrt{1 - \frac{1}{\left(1 + 1957 \cdot 10^{-6} \frac{U}{V} \right)^2}}$$

Diagram for arc length 10714872 that is nearly identical with subnormal length 103178, the gravitational curvature constant. Multiple of angular value 63,434949 degrees, is every sequence divided by 4, and for integral equation curvature constant still to be determined. Curvature constant $\frac{dr}{d\phi}$ is obtained, ln 10 (since 10fold on basis of e , ln 10 ist) divided by 1,10714872*2, by 2,21429744. Whereby unambiguous angular value of 10fold of radius vector lies on whole-number cosine and sine values, here 0,6 und 0,8.

Between 0,6 and 0,8 and 0,28 and 0,96 lie 4,42859... - 2,2142974... which is twice arctan 2. Accordingly the following equation determines the curvature constant.

$$(11.14) \quad \left[\int_0^1 \frac{\ln(10)}{\operatorname{atan}(2) \cdot 2} dx \right] = 1.0398716342199136134$$

Thus with the nth angle value 31,7 degrees, here n is 4, results in value of radius vector 10.

$$(11.15) \quad n := 4$$

$$\left[\int_0^1 e^{\left[\frac{\ln(10)}{\operatorname{atan}(2) \cdot 2} \cdot \frac{\pi}{180} \cdot \frac{\operatorname{atan}\left(\frac{\sqrt{5}-1}{2}\right)}{\frac{\pi}{180}} \right] \cdot n} dx \right] = 10$$

Table for first 10 steps serves overview over gravitational constant with 1,107148718, if not entirely precisely $1,103178(10(\ln 2)/2\pi)$, 1 bit transmission by 1103 meters, with decadic logarithmic function 10^n with refined intermediate values.

n	base tangent	arc length	angle degrees	cos x	sin x	radius length	tan x
0	0,618033989	0	0	1	0	1	0
1	0,618033989	0,553574359	31,71747441	0,850650808	0,525731112	1,778279406	0,618033989
2	0,618033989	1,107148718	63,43494882	0,447213595	0,894427191	3,162277645	2
3	0,618033989	1,660723077	95,15242323	-0,089805595	0,995959314	5,623413212	-11,09016994
4	0,618033989	2,214297436	126,8698976	-0,6	0,8	10	-1,333333333
5	0,618033989	2,767871794	158,5873721	-0,930975375	0,365081979	17,78279389	-0,392149985
6	0,618033989	3,321446153	190,3048465	-0,98386991	-0,178885438	31,62277616	0,181818182
7	0,618033989	3,875020512	222,0223209	-0,742884094	-0,669420065	56,2341316	0,901109702
8	0,618033989	4,428594871	253,7397953	-0,28	-0,96	100	3,428571429
9	0,618033989	4,98216923	285,4572697	0,266519641	-0,963829487	177,8279373	-3,616354437
10	0,618033989	5,535743589	317,1747441	0,733430297	-0,679764665	316,2277586	-0,926829268

Grundfrequenz Basis ist mit Frequenzwert 7,8 Hz aus Reihe von Pascalische Dreiecke, $11^n/100^{n+1}$ im Vergleich mit Göbel aufgefallene Progression folgende Tabelle dienst um Überblick.

	1	2	3	4	5
1	1,73205081	2,44948974	3,16227766	3,87298335	
7,8	13,5099963	19,10602	24,6657657	30,2092701	

	21,3099963	40,4160163	65,081782	95,2910521
6	7	8	9	10
4,58257569	5,29150262	6	6,70820393	7,41619849
35,7440904	41,2737205	46,8	52,3239907	57,8463482
131,035143	172,308863	219,108863	271,432854	329,279202

$$(11.16) \quad f(n) := 7.8 \cdot \sqrt{\frac{n \cdot (n+1)}{2}}$$

$$(11.17) \quad \sum_{n=1}^2 f(n) = 21.31$$

21.30999629903724289

$$(11.18) \quad \sum_{n=1}^3 f(n) =$$

40.41601629274603205

Frequency of 8,9Hz based on Pascal's triangles has 88 periodic lengths. One notes relation of frequency value to gauge value peaks, and these are triangle numbers which also form Pascal's triangles.

$$(11.19) \quad f(n) := \frac{11^n}{100^{n+1}}$$

$$(11.20) \quad \sum_{n=0}^{81} f(n) = 0.011$$

.0112359550561797752808988764044943820224719101123595505617977528089887640449

With two section 44+44 the 88 period lengths form sum of all Fibonacci numbers row.

$$(11.20) \quad \left[\int_0^1 \left(\frac{1}{89} \right) dx \right] = 0.011$$

.0112359550561797752808988764044943820224719101123595505617977528089887640449438

8,9 minus 1,1 with result 7,8 is Schumann frequency: Function for Schumann frequency of 7,8Hz is:

$$(11.22) \quad f(n) := \frac{22^n}{100^{n+1}}$$

Thus definition for 6 period lengths of 7,8Hz reads as follows:

(11.31)

$$\text{dynamic marked frequencies Sequence} = f_0 \cdot \sqrt{\frac{n(n+1) \times (n+2)}{1 \cdot 2 \cdot 3}}$$

$$\text{or marked frequencies Sequence} = f_0 \cdot \sqrt{\frac{n(n+1) \times (n+2)}{1 \cdot 2 \cdot 3}} - 1$$

Under curvature constant $\ln 2/2\pi$, in logarithmic spirale spectrum sample 1 following angle values form.

N	$(n(n+1)(2n+1))/6$	$(n(n+1)(2n+1))/6$ -	Marked gauge peak value	angle value	angle-90N	N
1	1,333333333					
2	6		5 5-6Hz	835,894114	25,8941142	9
3	16		15 15Hz	1406,48061	56,4806144	15
4	33,33333333	32,33333333	30Hz gauge peak	1805,38212	5,38212293	20
5	60		59	2117,7515	47,7514978	23
6	98		97 100Hz	2375,96862	35,9686232	26
7	149,3333333	148,3333333		2596,57165	76,571649	28
8	216		215	2789,34943	89,3494259	30
9	300		299	2960,6406	80,6406027	32
10	403,3333333	402,3333333	450Hz?	3114,80909	54,8090856	34
11	528		527	3254,99729	14,9972946	36
12	676		675	3383,54773	53,5477291	37
13	849,3333333	848,3333333		3502,25548	82,2554785	38
14	1050		1049	3612,52763	12,5276265	40
15	1280		1279	3715,4882	25,4881976	41
16	1541,3333333	1540,3333333		3812,04967	32,0496744	42
17	1836		1835	3902,96317	32,9631652	43
18	2166		2165	3988,85447	28,8544715	44
19	2533,3333333	2532,3333333		4070,25058	20,2505779	45
20	2940		2939	4147,59947	7,59947171	46
21	3388		3387	4221,28522	81,2852177	46
22	3879,3333333	3878,3333333		4291,63959	61,6395922	47
23	4416		4415	4358,95118	38,9511801	48
24	5000		4999 5000Hz	4423,47257	13,4725722	49

One may write in a sum formula:

(11.32)

$$\sum_{n=0}^{181} f(n) =$$

179962.86867382431724755761672448328424244448525130507978149057108365203541480929242672531038585002140307277601396193594964

With this value of nearly 18 there exists another very strange relation.

Sample 3 spectrum (Sound Pressure over Frequencies) is a row, again arithmetic sum or triangle number:

(11.33)

$$\text{Frequencies Series} = 5 \cdot \sqrt{\frac{n(n+1)}{2}}$$

In 90 degrees assimilated angle value shows, when equal with angle value, then octave means relation with same pitch value, e.g. 15 Hz and 30 Hz are equal pitch name. In Sample Grad angesammelte Winkelwert zeigt, wenn gleich Winkelwert, dann bedeuten Oktave Verhältnis mit gleiche pitch Wert, zum Beispiel 15 Hz und 30 Hz sind gleiche Pitch Name. Values registered in sample 3 have, except for market peak gauge values, continuously different frequency values.

However, values documented in sample 3 forms dynamics of particular strength which distinguish them from other frequency number that are outside and apart from triangle number values.

N	$(n(n+1)/2)$	$5*((n(n+1)/2)$	marked peak value		angle value	angle-90N	N
1	1	5	5Hz		835,894114	25,8941142	9
2	3	15	15Hz		1406,48061	56,4806144	15
3	6	30	30Hz		1766,48061	56,4806144	19
4	10	50	50Hz	gauge peak	2031,78823	51,7882283	22
5	15	75	75Hz		2242,37473	82,3747286	24
6	21	105			2417,12839	77,1283864	26
7	28	140			2566,54189	46,5418861	28
8	36	180			2697,06711	87,0671147	29
9	45	225			2812,96123	22,9612288	31
10	55	275			2917,18361	37,183611	32
11	66	330			3011,876	41,8759971	33
12	78	390			3098,63891	38,6389129	34
13	91	455	450Hz		3178,70018	28,7001846	35
14	105	525			3253,0225	13,0225005	36
15	120	600			3322,37473	82,3747286	36
16	136	680			3387,38074	57,380737	37
17	153	765			3448,55374	28,5537375	38
18	171	855			3506,32102	86,3210195	38
19	190	950			3561,04213	51,0421332	39
20	210	1050			3613,0225	13,0225005	40
21	231	1155			3662,52377	62,5237691	40
22	253	1265			3709,7718	19,771801	41
23	276	1380			3754,96292	64,9629186	41
24	300	1500	1500Hz		3798,26884	18,2688427	42
25	325	1625			3839,84064	59,840641	42
26	351	1755			3879,81191	9,81191347	43
27	378	1890			3918,30139	48,3013869	43
28	406	2030			3955,41504	85,4150443	43
29	435	2175			3991,24789	31,2478868	44
30	465	2325			4025,8854	65,8854003	44
31	496	2480			4059,40479	9,4047859	45
32	528	2640			4091,876	41,8759971	45
33	561	2805			4123,36262	73,36262	45
34	595	2975	3000Hz		4153,92262	13,9226231	46

Stage 5: April 27 a:

Memorandum refuting the assumption of a cell phone industry professor that the Munich Hum was caused by street noise or the vibrations of department store ventilators. Key argument:

It is unknown to me [Kato] what noise should arise from the streets of Munich that has its basic frequency rise 3571 times in such a short time as 0,000132473 seconds. The only known source for this vibrational fingerprint is the GSM Omni cell antenna grid, clearly excluding any other known cause.

Stage 6: April 27 b:

A 126 page analytic document by Hitoi Kato. Its main statement: The frequency hopping of 217 jumps in the GSM 900 cell phone system can only come about under the gravitational curvature constant. This 126 page treatise thereby in its train of argument ties in the GSM cell antenna emissions with the astronomical situation of planet Earth and its moon, referencing related ideas developed above in Part One. Many details are omitted here and could fill another publication.

After receiving the emitter burst the GSM system changes to receiver frequency; then the receiver frequency must be 46.28MHz

$$(11.34) \quad \left[\int_0^1 \frac{\left(\frac{1}{217^{0.304805}} \right)}{10^6} dx \right] = 46.283 \blacksquare$$

because 46,283MHz are go back with reversal of the exponent of 0,304805 to 217.

$$(11.35) \quad \left[\int_0^1 \left(\frac{1}{217^{0.304805}} \right)^{(0.304805)} dx \right] = 217 \blacksquare$$

If one further wishes to develop an integral equation then the logical deduction is shown here.

$$(11.36) \quad \left[\int_0^1 \left(\frac{1}{217^{0.304805}} \right) \left[e^{-\left[\frac{\ln(2)}{2 \cdot \pi} \cdot \frac{\pi}{180} \cdot \frac{\left(\frac{\ln(0.304805)}{\frac{\ln(2)}{2 \cdot \pi}} \right)}{\frac{\pi}{180}} \right]} \right] dx \right] = 217 \blacksquare$$

Stage 7: May 26:

This continues the resonance analysis of the foregoing stage in the astronomical context. Here is one example:

(11.37)

$$\left[\begin{array}{c} \bullet 1 \\ \bullet 0 \end{array} \right] \left[\begin{array}{c} \left[\frac{\left(\operatorname{atan} \left(\frac{3}{4} \right) \right) - 4}{\frac{\pi}{180}} \right] \\ \left[\frac{\left(\operatorname{atan} \left(\frac{4}{3} \right) \right) - 4}{\frac{\pi}{180}} \right] \\ \hline 2 \cdot \pi \end{array} \right] d \ x =$$

.11044636094455591231

The exact value of the gravitational curvature constant is:

(11.38)

$$\left[\begin{array}{c} \bullet 1 \\ \bullet 0 \end{array} \right] \left(\frac{\ln(2)}{2 \cdot \pi} \right) dx =$$

.1103178000763257967

Stage 8: June 2:

Stage 9: June 23:

Stage 10: July 13:

Here Kato engages in further detail analysis that confirms his above results. In the last document in July, he adds sferics into the scope of his analysis. He finds that resonance is also created with this natural wave system through the GMS 900 cell antenna emissions.

Details omitted since the methodical approach and heretofore unknown mathematical background has been sufficiently clarified for a primer to the subject matter.

ZETAS NOTES – PRESENTATION OF IMPORTANT FRAGMENTS

Nothing herein is final except your steps of awakening.

The following fragment by Hitoshi KATO, received by Akanthus on September 01, 2011, has the digital time stamp: August 29, 2011, 18:43. The document is the first draft of a paper which Hitoshi Kato is in the process of finalizing (per 2011-12-06.)

Corrigenda:

Mr Kato mentioned that his draft paper (the following paper, not in a final stage of writing) contains one verbal mistake, namely the word „variables” used, overleaf, on p. 58 below. He would better use the word „factors” or similar.

The draft in its present stage has changed massively substantially. The following August 29 first draft version is presented to elucidate what the historical core of the work on Hitoshi Kato’s paper was. A feature such as the formula and the four possible angular values for the sequence of prime numbers is contained only in the following early draft.

The later stages of the draft have moved on to yet even more complex areas of the mathematics of sequences as embedded in nature, but that is no longer part of the following introductory presentation. In the present stage of his writing, Mr Kato has found the solution for the Collatz conjecture, the elliptic nature of the real numbers (1, 2, 3 ...), for calculating speeds beyond the light barrier, and many number relations. He is working with a spreadsheet (Microsoft Excel.) His basic method is an almost excessive collation and frequent re-collation of all number relations. I would describe his working consciousness with the following words: lucid mental cloud (or cluster) of number relations, with lucid ability to track their complex inter-related changes when individual number values are changed. This, apparently, replaces the present concept of „mathematical formula” that is the key focus of mathematicians.

Breaking the Light Barrier:

First details per Saturday, 2011-12-03: Relativistic time dilation for the velocity c is ca. 2. Mass increase is ca. 3. The rest mass of the photon is 7.37^{-45} . The electron moves at the speed of light, c . The proton moves at 21,990,852.168114 times the speed of light. **The often so-called „light barrier” that is construed from Einstein’s physics is in reality non-existent.**

Update per Tuesday, 2011-12-06: Using Microsoft Excel calculation spreadsheet software, Hitoshi Kato computed 1009 steps. The math increases the higher the steps get, resulting in more than 2.9 million interrelated calculations. The basic numbers are natural constants. The calculations establish their database-like relations, featuring an all-inclusive mesh or matrix of complex mathematical linkages. He mentioned the factor of 2.038 for time dilation, answering a question I asked, adding that a better expression is, *period length* (*Periodenlänge*). Hitoshi Kato’s progression is based on the electron: The electron’s energetic quantum leaps follow a medium-complex sequence of elliptic structure, seamlessly leading far beyond the speed of light. The mathematical foundations of quantum physics and relativity are one and the same.

Update 2011-12-25: The math confuses perihelion & aphelion (is corrected in current draft.)

Communicated by Hitoshi Kato via telephone – typographical errors if any solely due to my scrivener’s error. Many additional details will be presented by Hitoshi Kato.

Elementary Introduction: Astronomical Unit, Acceleration of Electrons' Velocity after Albert Einstein Match with Collatz/Titus Number Theory

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^{§1} [In the original wording, but §§1-269 numbers were inserted.
In formatting the document, macros were disabled.
Tables were aligned to page margins. – S.Gr.]

§2

$$F = -G \frac{m_1 \cdot m_2}{r^2}$$

usually for G does not need minus sign as -G

equation for gravitation by Newton has 3 variables 1.G, 2.mass and 3.r the distance.

$$G = 6,67428(67) \cdot 10^{-11} \frac{\text{m}^3}{\text{kg} \cdot \text{s}^2} = 6,67428(67) \cdot 10^{-11} \frac{\text{N} \cdot \text{m}^2}{\text{kg}^2}$$

 $1,989 \times 10^{30}$ kg, mass of the Sun $5,974 \cdot 10^{24}$ kg, mass of the Earth

[See note on p. 57 on word *variables* above.]

^{§3}The third variable r is same from $3n+1$ Collatz number series which need for prime number 2 definition for product by $3n+1$, otherwise do not join to Johann Daniel Titius number serie (in year 1766). Convert to r from Lothar Collatz number(since 1937) is for example after definition by Collatz if a number n is even then divide by 2, if n is odd number then multiply by 3 and add 1. but Collatz definition of odd number change to definition of primnumber, because only one even prime number is 2 missing, with even primenumber 2 then perfect unitiy to Astronomical Titius sequence.

$2*3+1=7$ has reciprocal structure also sequence of double progression.

number value 14,28,57...

7 times 2 is 14, 7 times 4 is 28 7 times 8 is 56, so 7 times 8 plus 1

14 28 56

0,14 0,0028 0,000057

4 6

14	28	56	14	28	56	
0,14	0,0028	5,7E-05	1,4E-15	2,8E-17	5,7E-19	0,142857

4 6 16 18 20

Number table show primenumber are expt 2 all, oddnumbers.

^{§4}Some of primenumbers are.

2	3	5	7	11	13	17	19
23	29	31	37	41	43	47	53
59	61	67	71	73	79	83	89
97	101	103	107	109	113	127	131
137	139	149	151	157	163	167	173
179	181	191	193	197	199	211	223
227	229	233	239	241	251	257	263
269	271	277	281	283	293	307	311
313	317	331	337	347	349	353	359
367	373	379	383	389	397	401	409
419	421	431	433	439	443	449	457
461	463	467	479	487	491	499	503
509	521	523	541	547	557	563	569
571	577	587	593	599	601	607	613
617	619	631	641	643	647	653	659
661	673	677	683	691	701	709	719
727	733	739	743	751	757	761	769
773	787	797	809	811	821	823	827
829	839	853	857	859	863	877	881
883	887	907	911	919	929	937	941
947	953	967	971	977	983	991	997

^{§5}Except prime number 2 and 3 are all prime number participate just in 4 fields.

^{§6}**Quint and Quart by participation of prime number.**

To escape from confusion, Collatz conjecture familer to division by number 2 is different,
The half of $2^{(19/12)}$ is $19/12$ of $(7/12)$

$2^{(7/12)}$ double value of $2^{(19/12)}$ is $2^{(31/12)}$ $19+12$ is 31 so mechanic division of even number by 2 can not find the law of participation of prime number, as table show double progression of 16,8,4... is progression of $n+12$ as $24+12, 36+12, 48+12$ of 36,48,60

^{§7}Participation of Prime number from Tritonus Quart or Quint

3,436E+10	420	421	422	423	424	425	426	427	428	429	430	431	432
1,718E+10	408	409	410	411	412	413	414	415	416	417	418	419	420
8589934592	396	397	398	399	400	401	402	403	404	405	406	407	408
4294967296	384	385	386	387	388	389	390	391	392	393	394	395	396
2147483648	372	373	374	375	376	377	378	379	380	381	382	383	384
1073741824	360	361	362	363	364	365	366	367	368	369	370	371	372
536870912	348	349	350	351	352	353	354	355	356	357	358	359	360
268435456	336	337	338	339	340	341	342	343	344	345	346	347	348
134217728	324	325	326	327	328	329	330	331	332	333	334	335	336
67108864	312	313	314	315	316	317	318	319	320	321	322	323	324
33554432	300	301	302	303	304	305	306	307	308	309	310	311	312
16777216	288	289	290	291	292	293	294	295	296	297	298	299	300
8388608	276	277	278	279	280	281	282	283	284	285	286	287	288
4194304	264	265	266	267	268	269	270	271	272	273	274	275	276
2097152	252	253	254	255	256	257	258	259	260	261	262	263	264
1048576	240	241	242	243	244	245	246	247	248	249	250	251	252
524288	228	229	230	231	232	233	234	235	236	237	238	239	240
262144	216	217	218	219	220	221	222	223	224	225	226	227	228
131072	204	205	206	207	208	209	210	211	212	213	214	215	216

65536	192	193	194	195	196	197	198	199	200	201	202	203	204
32768	180	181	182	183	184	185	186	187	188	189	190	191	192
16384	168	169	170	171	172	173	174	175	176	177	178	179	180
8192	156	157	158	159	160	161	162	163	164	165	166	167	168
4096	144	145	146	147	148	149	150	151	152	153	154	155	156
2048	132	133	134	135	136	137	138	139	140	141	142	143	144
1024	120	121	122	123	124	125	126	127	128	129	130	131	132
512	108	109	110	111	112	113	114	115	116	117	118	119	120
256	96	97	98	99	100	101	102	103	104	105	106	107	108
128	84	85	86	87	88	89	90	91	92	93	94	95	96
64	72	73	74	75	76	77	78	79	80	81	82	83	84
32	60	61	62	63	64	65	66	67	68	69	70	71	72
16	48	49	50	51	52	53	54	55	56	57	58	59	60
8	36	37	38	39	40	41	42	43	44	45	46	47	48
4	24	25	26	27	28	29	30	31	32	33	34	35	36
2	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0	1	2	3	4	5	6	7	8	9	10	11	12

frequency c c# d d# e f f# g g# a bflat b c

^{§8}Participation of primenumber build from natural reason from curvature constant $\ln(2)/(2*\pi)$

		curvature constant		pi/180		angle	Prim number	=
1	2,718281828	^	0,1103178	*	0,017453293	* 30*		
2	2,718281828	^	0,1103178	*	0,017453293	* 30*	2	1,122462048 = $2^{(2/12)}$
3	2,718281828	^	0,1103178	*	0,017453293	* 30*	3	1,189207115 = $2^{(3/12)}$
4	2,718281828	^	0,1103178	*	0,017453293	* 30*	5	1,334839854 = $2^{(5/12)}$
5	2,718281828	^	0,1103178	*	0,017453293	* 30*	7	1,498307077 = $2^{(7/12)}$
6	2,718281828	^	0,1103178	*	0,017453293	* 30*	11	1,887748625 = $2^{(11/12)}$
7	2,718281828	^	0,1103178	*	0,017453293	* 30*	13	2,118926189 = $2^{(13/12)}$
8	2,718281828	^	0,1103178	*	0,017453293	* 30*	17	2,669679708 = $2^{(17/12)}$
9	2,718281828	^	0,1103178	*	0,017453293	* 30*	19	2,996614154 = $2^{(19/12)}$
10	2,718281828	^	0,1103178	*	0,017453293	* 30*	23	3,775497251 = $2^{(23/12)}$
11	2,718281828	^	0,1103178	*	0,017453293	* 30*	29	5,339359417 = $2^{(29/12)}$

^{§9}Reciprocal value of 1,9 as arclength of 30,15567343 degree does not make participation of prime number as table below shows,

^{§10}Because at 360° grow radius vector not to 2 but 2,007206593. so curvature is not 0,1103178 but $\ln(2,007206593)/2\pi = 0,110890252$

						Prime number	=
2,718281828	^	0,1103178	*	0,017453293	* 30,15567343*		
2,718281828	^	0,1103178	*	0,017453293	* 30,15567343*	2	1,123135132
2,718281828	^	0,1103178		0,017453293	30,15567343*	3	1,190276937

		*		*	
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 5 1,336841845
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 7 1,501454043
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 11 1,893982965
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 13 2,127198808
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 17 2,683317765
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 19 3,013728453
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 23 3,801615093
2,718281828 ^	0,1103178	*	0,017453293	*	30,15567343* 29 5,385973107

3,436E+10	426	427	428	429	430	431	432	421	
1,718E+10	414	415	416	417	418	419	420	409	§11
8589934592	402	403	404	405	406	407	408	397	
4294967296	390	391	392	393	394	395	396	385	
2147483648	378	379	380	381	382	383	384	373	
1073741824	366	367	368	369	370	371	372	361	
536870912	354	355	356	357	358	359	360	349	
268435456	342	343	344	345	346	347	348	337	
134217728	330	331	332	333	334	335	336	325	
67108864	318	319	320	321	322	323	324	313	
33554432	306	307	308	309	310	311	312	301	
16777216	294	295	296	297	298	299	300	289	
8388608	282	283	284	285	286	287	288	277	
4194304	270	271	272	273	274	275	276	265	
2097152	258	259	260	261	262	263	264	253	
1048576	246	247	248	249	250	251	252	241	
524288	234	235	236	237	238	239	240	229	
262144	222	223	224	225	226	227	228	217	
131072	210	211	212	213	214	215	216	205	
65536	198	199	200	201	202	203	204	193	
32768	186	187	188	189	190	191	192	181	
16384	174	175	176	177	178	179	180	169	
8192	162	163	164	165	166	167	168	157	
4096	150	151	152	153	154	155	156	145	
2048	138	139	140	141	142	143	144	133	
1024	126	127	128	129	130	131	132	121	
512	114	115	116	117	118	119	120	109	
256	102	103	104	105	106	107	108	97	
128	90	91	92	93	94	95	96	85	
64	78	79	80	81	82	83	84	73	
32	66	67	68	69	70	71	72	61	
16	54	55	56	57	58	59	60	49	
8	42	43	44	45	46	47	48	37	
4	30	31	32	33	34	35	36	25	
2	18	19	20	21	22	23	24	13	
1	6	7	8	9	10	11	12	1	

§12 frequency f# g g# a bflat b c c#
 Tritonus Quart Quint

§13 Music interval is easy to confuse by who is not music studied .

Fifth is not 5 step up or down, but 7 step, each step of 30 degree=210 degree . forth is not it sound 4 but 7 step back(210 degree back or 5 step up(150 degree) from based frequency

From c to g								Quint
		1	2	3	4	5	6	7
C	c#	d	d#	E	F	f#	G	
$2^{(0/12)}$	$2^{(1/12)}$	$2^{(2/12)}$	$2^{(3/12)}$	$2^{(4/12)}$	$2^{(5/12)}$	$2^{(6/12)}$	$2^{(7/12)}$	
0°	30°	60°	90°	120°	150°	180°	210°	
from c to f								
	7	6	5	4	3	2	1	0
F	g flat Ges	g	a flat As	A	b flat	H in German	C	
$2^{(-7/12)}$	$2^{(-6/12)}$	$2^{(-5/12)}$	$2^{(-4/12)}$	$2^{(-3/12)}$	$2^{(-2/12)}$	$2^{(-1/12)}$	$2^{(0/12)}$	
Quart-210°	-180°	-150°	-120°	-90°	-60°	-30°	0°	

7 step up and minus 7 step down is inversion of Quint and Quart

5 step up and minus 5 step down is once Quart and the other is the half of Quint as number table shows.

Half of Quint 1,498307.../2=0,749153538is reciprocal number of Quart

Half of Quart 1,334839854./2=0,667419927 is reciprocal number of Quint.

2,718281828 ^ 0,1103178 * 0,017453293 * 30 * 7 1,498307077 quint

2,718281828 ^ 0,1103178 * 0,017453293 * 30 * 7 0,667419927 quart

2,718281828 ^ 0,1103178 * 0,017453293 * 30 * 5 1,334839854 quart

2,718281828 ^ 0,1103178 * 0,017453293 * 30 * 5 0,749153538 quint/2

$$\int_0^1 \ln(2) dx =$$

.6931471805599453094 number value is

very close to number of days of Metonic cycle as Wikipedias report describe

§14 Number value of $\ln(2)$ is [astronomy](#) and [calendar](#) studies, the **Metonic cycle** or **Enneadecaeteris** (from Greek words for nineteen years) is a period of very close to 19 years which is remarkable for being very nearly a [common multiple](#) of the solar [year](#) and the [synodic \(lunar\) month](#). The [Greek astronomer Meton of Athens](#) observed that a period of 19 years is almost exactly equal to 235 synodic months, and rounded to full days counts 6940 days. The difference between the two periods (of 19 years and 235 synodic months) is only a few hours, depending on the definition of the year.

Taking a year to be 1/19th of this 6940-day cycle gives a year length of $365 + 1/4 + 1/76$ days (the unrounded cycle is much more accurate), which is slightly more than 12 synodic months. To keep a 12-month lunar year in pace with the solar year, an [intercalary](#) 13th month would have to be added on seven occasions during the nineteen-year period. Meton introduced the cycle in circa 432 BC but it was actually known earlier by Babylonian astronomers.

The cycle was used in the [Babylonian calendar](#), the medieval [computus](#) (i.e. the calculation of the date of [Easter](#)) and still regulates the 19-year cycle of [intercalary](#) months in the [Hebrew calendar](#).

Participation of Prime number is based from based pitch of c, f forth g fifth
 From middle of music scale named Toritinus of f# f sharp became tone b h in German is
 forth c# is fifth in the structure of logarithmic spiral under curvature constant (ln2 divide by
 2pi9 is fifth up of 210 degree fifth down of 210 degree for forth, together makes 420 degree,
 this is structure of inversion of fifth and forth or Quint and Quart.

Easy to recognize if from c fifth up build tone g(Quint) but from c fifth down built tone f
 which is Quart to based tone c.

Following methode is use for all prime numbers, therefore table is just from table above only
 19 prime numbers are used.

^{§15}Prime number is at first only in 6 angle value participation, but later only 4 angles, reason
 particiuation is curvature constant.

$$\int_0^1 (e) dx =$$

^{§16}From basis of e 2.718281828459045235 then put exponent of curvature constant 0,1103178
 multiply prime number times 30 degree, because participation of all prime numbers are based
 on 12... also arclength of 30 degree is not far from primenumber 19, but here is 1,9098...

$$\int_0^1 \frac{1}{30 \cdot \frac{\pi}{180}} dx =$$

1.9098593171027440292 ^{§17}so we can say arclength of 30 degree is reciprocal number of
 1,9098...

$$\int_0^1 \frac{\left(\frac{1}{19}\right)}{30 \cdot \frac{\pi}{180}} dx =$$

^{§18}and reciprocal value of 19 and arclength of 30 degree is very close
 each other, quotient of both values is very small of .100518911426460212 prime number field is
 from basis pitch, for example c, only Quint g or Quart f also from middle of tone scale
 Tritonus f# also only Quint c# d flat or Quart b h or, on those angle came all prime
 number. Quint and Quart sequence is the fundamental sequence by composition of Johann
 Sebastian Bach.

^{§19}

Basis e	curvature	Pi/180	Prime number	Radiusvector	pitch							
			Only one time									
2,718281828	^	0,1103178	*	0,017453293	*	30	*	2	1,122462048	=	2^(2/12)	d
2,718281828	^	0,1103178	*	0,017453293	*	30	*	3	1,189207115	=	2^(3/12)	d# sharp or e flat
2,718281828	^	0,1103178	*	0,017453293	*	30	*	5	1,334839854	=	2^(5/12)	F
2,718281828	^	0,1103178	*	0,017453293	*	30	*	7	1,498307077	=	2^(7/12)	g b/ natural H
2,718281828	^	0,1103178	*	0,017453293	*	30	*	11	1,887748625	=	2^(11/12)	in German
2,718281828	^	0,1103178	*	0,017453293	*	30	*	13	2,118926189	=	2^(13/12)	c# sharp or d flat
2,718281828	^	0,1103178	*	0,017453293	*	30	*	17	2,669679708	=	2^(17/12)	F

$2,718281828 \wedge 0,1103178 * 0,017453293 * 30 *$ $2,718281828 \wedge 0,1103178 * 0,017453293 * 30 *$ $2,718281828 \wedge 0,1103178 * 0,017453293 * 30 *$	$19 \ 2,996614154 = 2^{(19/12)} \ G$ $23 \ 3,775497251 = 2^{(23/12)} \ \text{b/ natural H in German}$ $29 \ 5,339359417 = 2^{(29/12)} \ F$
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§20 Number value in table possibly seem too mathematical calculations, but if one go to supermarket and by a chocolate and take in your hand, physicist understand much more calculation than this number table, simple daily duty hide amount of matter by electron. What we see on daily duty are almost all the activity of electron that we can not see with eyes.

For example energy unit a Joule is take a chocolate of weight of 102 gramm at at a super market in your hand

Ein Joule ist gleich der Energie, die benötigt wird, um:

- über die [Strecke](#) von einem Meter die Kraft von einem Newton aufzuwenden (1 [Newtonmeter](#)) – etwa um einen Körper mit der Masse 0,102 kg (das entspricht etwa einer Tafel Schokolade) um einen Meter anzuheben . from Wikipedia
- compare to energy in every ones activity calculation of participation of prime number is simple.

Before five days ago I took a taxi, taxi driver told me, his daughter is now three years old, and he was happy that she learn to speak, he says how it possible that she lear to speak, god told her, and he smiled same as one think about prime number, how it possible one became thought on prime number in ones mind?

§21 Participation of prime number 2 and 3 are exeption, just one time came in prime number order.

§22 Prime number 19 is same as 7, number 17 is same as 5, number 13 is same order as 1. 7 is same order as -5. 5 is same order as -7, 1 is same order as -13.

astronomical Titius number satisfy with even prime number , then $2*3+1$ is 7 that the distance of Venus..

§23 A number which at final sequence to back to number 1 is all from sequence of $2^{(n)}$. One step before the final sequence is a number: (2^n minus one) then divide by /3 For example $(16-1)/3=5$

an even number 36 is divisible by 2 but next Collatz step 36 dived by 2 is 18, 18 is a evennumber therefore divide by 2 makes number 9 because $\ln 36$ divide by $\ln 2$ do not results as an integer which is continues until 1, this meand number 36 is not divisible by 2 until number 1 but natural logarithmus of $\ln 8$ divide by 4 is 1,5 not 2, also $\ln 16$ divide by $\ln 8$ is not 2 but 1,333333,,,. $\ln 32$ divide by $\ln 16$ is 1,25, $\ln 32$ divide by $\ln 16$ is 1,25. $\ln 64$ divide by $\ln 32$ is 1,2. this number sequence is calculation on velocity of electron by theory of Albert Einstein, some thing strange than Collatz conjecture that all of those ratio of dobleness is answer for division simple 2.

§24

LN	36 / $\ln 2 =$	5,169925
	18	
	9	

§25 This number table show strange calculation by Einstein.

velocity/kilometer

593,0969715	quotient	q^2	n+1	n	2^(n+1)	2^(n)					
838,7657809	1,41421356	2	2	1	4	2					
1027,274088	1,22474487	1,5	3	2	8	4	LN	8	/	LN	4
1186,193943	1,15470054	1,33333333	4	3	16	8	LN	16	/	LN	8
1326,205145	1,11803399	1,25	5	4	32	16	LN	32	/	LN	16
1452,784948	1,09544512	1,2	6	5	64	32	LN	64	/	LN	32
1569,18709	1,08012345	1,16666667	7	6	128	64	LN	128	/	LN	64
1677,531562	1,06904497	1,14285714	8	7	256	128	LN	256	/	LN	128
1779,290914	1,06066017	1,125	9	8	512	256	LN	512	/	LN	256
1875,537303	1,05409255	1,11111111	10	9	1024	512	LN	1024	/	LN	512
1967,080119	1,04880885	1,1	11	10	2048	1024	LN	2048	/	LN	1024
2054,548177	1,04446594	1,09090909	12	11	4096	2048	LN	4096	/	LN	2048
2138,441542	1,040833	1,08333333	13	12	8192	4096	LN	8192	/	LN	4096
2219,165664	1,03774904	1,07692308	14	13	16384	8192	LN	16384	/	LN	8192
2297,054693	1,03509834	1,07142857	15	14	32768	16384	LN	32768	/	LN	16384
2372,387886	1,03279556	1,06666667	16	15	65536	32768	LN	65536	/	LN	32768
2445,40146	1,03077641	1,0625	17	16	131072	65536	LN	131072	/	LN	65536
2516,297343	1,02899151	1,05882353	18	17	262144	131072	LN	262144	/	LN	131072
2585,249762	1,02740233	1,05555556	19	18	524288	262144	LN	524288	/	LN	262144
2652,410291	1,02597835	1,05263158	20	19	1048576	524288	LN	1E+06	/	LN	524288

§26

	Collatz	Einstein
=	2	1,5
=	2	1,333333
=	2	1,25
=	2	1,2
=	2	1,166667
=	2	1,142857
=	2	1,125
=	2	1,111111
=	2	1,1
=	2	1,090909
=	2	1,083333
=	2	1,076923
=	2	1,071429
=	2	1,066667
=	2	1,0625
=	2	1,058824
=	2	1,055556
=	2	1,052632
=	2	1,05

§27 Einstein calculation is in the mathematics called n+1 to n Sequence, like this number table shows. left corner is number start one and one then each step add number 1, so number is shifted with difference of 1, second step is already 2 and 1, but this number is number for potenz as 2^2 is 4, 2^1 is 2, division is $\ln 4$ divide by $\ln 2$ is 2 to compare the simple division by Collatz conjuncture is but number 2 number to one became by Einstein only $\ln 2$ divide by $\ln 2$ is 1. because 2 power of 1 is 2 2 power of zero is one, as falimiar number sequence by Collatz conjuncture is as this number table show all double relation as 4 to 2 8 to 4...so on as

well as $\log 8$ divide by $\log 4$ is 1,5 $\log 4$ divide by $\log 2$ is 2 so if Einstein saw Collatz Theorem, possibly he divide for example $\log 64$ divide by $\log 64$ is 1, before he divide 64 by 2 to step to 1 that is the aim of Collatz calculation right side of the next table is nature of Einsteins theory because fundamental different mathematics, interesting is all number by Einstein same as fanal Collatz conjuncture of double ratio from $2^{(n+1)}$: $2^{(n)}$ that has 2 answers, once simple division like 128 divide by 64 is 2 the other is $\ln 128 / \ln 64$ is 1,166666 Arithmetic division and potentiell logarithmic calculation is different, logarithmic calculation is if a a number is given 3212456 then $\log 3212456$ divide by 3212456 is 1 because same number divide same number is of couse 1. We can image famouse humor of Einstein, who make a joke to fastest way to back to number 1 and he smile and say solved! Before even he start from number 27 In just one second, he wrote beside the number 27 other number 27, then 27 divide by 27 is already back to final number value of 1 instead of long 111 calculations

instead of 111 times selection of even and odd number of long step of Collatz conjuncture. But from odd and prime number times 3 add 1($3n+1$) describe mean distance of planets in our sun system, for this point Einstein can not ignore because if he interested gravitation field same as Titius number sequence of our sun system for possible unfinished his general field theory also later number table show sum of 111 Collatz number serie build 1,2 1,5 1,333333,1,25,1,2... come out from division by prim number 19 exact same number serie as right side of table down which is identish to square of Einstein number serie for this point is later in this elementary introduction described.

§28

n+1	n	$2^{(n+1)}$	$2^{(n)}$						Collatz	Einstein
1	1	2	2	LN	2 /	LN	2 =		1	1
2	1	4	2	LN	4 /	LN	2 =		2	2
3	2	8	4	LN	8 /	LN	4 =		2	1,5
4	3	16	8	LN	16 /	LN	8 =		2	1,333333
5	4	32	16	LN	32 /	LN	16 =		2	1,25
6	5	64	32	LN	64 /	LN	32 =		2	1,2
7	6	128	64	LN	128 /	LN	64 =		2	1,166667
8	7	256	128	LN	256 /	LN	128 =		2	1,142857
9	8	512	256	LN	512 /	LN	256 =		2	1,125
10	9	1024	512	LN	1024 /	LN	512 =		2	1,111111
11	10	2048	1024	LN	2048 /	LN	1024 =		2	1,1
12	11	4096	2048	LN	4096 /	LN	2048 =		2	1,090909
13	12	8192	4096	LN	8192 /	LN	4096 =		2	1,083333
14	13	16384	8192	LN	16384 /	LN	8192 =		2	1,076923
15	14	32768	16384	LN	32768 /	LN	16384 =		2	1,071429
16	15	65536	32768	LN	65536 /	LN	32768 =		2	1,066667
17	16	131072	65536	LN	131072 /	LN	65536 =		2	1,0625
18	17	262144	131072	LN	262144 /	LN	131072 =		2	1,058824
19	18	524288	262144	LN	524288 /	LN	262144 =		2	1,055556
20	19	1048576	524288	LN	1E+06 /	LN	524288 =		2	1,052632
21	20	2097152	1048576	LN	2E+06 /	LN	1E+06 =		2	1,05

integer, then back to 1, only by division by even primenumber 2

§29 When I visited Kepler exhibition in Austria, I was deep impressed of his analysis of monochord

A	b	b	2a
	2	3	3 4
Quint	Quart		

§30 Kepler recognise fifth on string and inversion to forth in string, in ratio of a:b to b: 2a
Violin of Albert Einstein at Einstein Society in Bern. Of course not only violin of Einstein
has this mathematical unit, every other Violin has same unit as number table of violin show.
All those frequencies based on curvature constant.

§31 As equation below show.

$$\left[\int_0^1 \frac{1}{440 \cdot e^{\text{curvature} \left(\left(\frac{\pi}{180} \right)^{30 \cdot n} \right) dx}} \right] = \text{curvature} := \frac{\ln(2)}{2 \cdot \pi} \quad n=7 \text{ mean Quint above, tone e has}$$

frequency of 659.255 Hz/ in one second

Basis of number table is same as $2^{(1/12)^{\text{potenz}}}$, for example $2^{(1/12)^2}$ is 1,122462048. not by multiplication of 2. but potenz progression of 1,2,3,4,5,6...

§32 On basis of $2^{(1/12)^{\text{potenz}}}$

	$2^{(1/12)^{\text{potenz}}}$
potenz	potenz)
1	1,059463094
2	1,122462048
3	1,189207115
4	1,25992105
5	1,334839854
6	1,414213562
7	1,498307077
8	1,587401052
9	1,681792831
10	1,781797436
11	1,887748625
12	2

§33

	Frequency	Frequency	length of string			
G						
String	195,997718			1 G		
	207,6523488	1,059463094	0,943874313	Ab		
		220	1,122462048	A	Albert	
	233,0818808	1,189207115	0,840896415	Bb		
	246,9416506	1,25992105	0,793700526	H/B		n Degree
	261,6255653	1,334839854	0,749153538	C		0 0
	277,182631	1,414213562	0,707106781	C#		1 30
D						
String	293,6647679			1 D		2 60
	311,1269837	1,059463094	0,943874313	D#		3 90
	329,6275569	1,122462048	0,890898718	E	Einstein	4 120
	349,2282314	1,189207115	0,840896415	F		5 150
	369,9944227	1,25992105	0,793700526	F#		6 180
	391,995436	1,334839854	0,749153538	G		7 210
	415,3046976	1,414213562	0,707106781	G#		8 240
A						
String	440			1 A	Albert	9 270

	466,1637615	1,059463094	0,943874313	A#		10	300
	493,8833013	1,122462048	0,890898718	H/B		11	330
	523,2511306	1,189207115	0,840896415	C		12	360
	554,365262	1,25992105	0,793700526	C#		13	390
	587,3295358	1,334839854	0,749153538	D		14	420
	622,2539674	1,414213562	0,707106781	D#		15	450
E							
String	659,2551138		1	E	Einstein	16	480
	698,4564629	1,059463094	0,943874313	F		17	510
	739,9888454	1,122462048	0,890898718	F#		18	540
	783,990872	1,189207115	0,840896415	G		19	570
	830,6093952	1,25992105	0,793700526	G#		20	600
	880	1,334839854	0,749153538	A	Albert	21	630
	932,327523	1,414213562	0,707106781	Bb		22	660
	987,7666025	1,498307077	0,667419927	H/B		23	690
	1046,502261	1,587401052	0,629960525	C		24	720
	1108,730524	1,681792831	0,594603558	C#		25	750
	1174,659072	1,781797436	0,561231024	D		26	780
	1244,507935	1,887748625	0,529731547	D#		27	810
	1318,510228	2	0,5	E	2^1	28	840
	1396,912926	2,118926189	0,471937156	F		29	870
	1479,977691	2,244924097	0,445449359	F#		30	900
	1567,981744	2,37841423	0,420448208	G		31	930
	1661,21879	2,5198421	0,396850263	G#		32	960
	1760	2,669679708	0,374576769	A	Albert	33	990
	1864,655046	2,828427125	0,353553391	A#		34	1020
	1975,533205	2,996614154	0,333709964	H/B		35	1050
	2093,004522	3,174802104	0,314980262	C		36	1080
	2217,461048	3,363585661	0,297301779	C#		37	1110
	2349,318143	3,563594873	0,280615512	D		38	1140
	2489,01587	3,775497251	0,264865774	D#		39	1170
	2637,020455	4	0,25	E	2^2 Einstein	40	1200
	2793,825851	4,237852377	0,235968578	F		41	1230
	2959,955382	4,489848193	0,22272468	F#		42	1260
	3135,963488	4,75682846	0,210224104	G		43	1290
	3322,437581	5,0396842	0,198425131	G#		44	1320
	3520	5,339359417	0,187288385	A	Albert	45	1350
	3729,310092	5,656854249	0,176776695	A#		46	1380
	3951,06641	5,993228308	0,166854982	H/B		47	1410
	4186,009045	6,349604208	0,157490131	C		48	1440
	4434,922096	6,727171322	0,148650889	C#		49	1470
	4698,636287	7,127189745	0,140307756	D		50	1500
	4978,03174	7,550994501	0,132432887	D#		51	1530
	5274,040911	8	0,125	E	2^3 Einstein	52	1560
	5587,651703	8,475704755	0,117984289	F		53	1590
	5919,910763	8,979696386	0,11136234	F#		54	1620
	6271,926976	9,51365692	0,105112052	G		55	1650
	6644,875161	10,0793684	0,099212566	G#		56	1680
	7040	10,67871883	0,093644192	A	Albert	57	1710
	7458,620184	11,3137085	0,088388348	A#		58	1740

7902,13282	11,98645662	0,083427491	H/B	59	1770
8372,01809	12,69920842	0,078745066	C	60	1800
8869,844191	13,45434264	0,074325445	C#	61	1830
9397,272573	14,25437949	0,070153878	D	62	1860
9956,063479	15,101989	0,066216443	D#	63	1890
10548,08182	16	0,0625	E 2^4 Einstein	64	1920

§34 Curvature constant by primenumber aswell as by structure of violin exist also astronomical structure by sunrise azimuth and sunset azimuth.
existence of curvature constant in any place on earth.

For example if sunrise azimuth is on 30 degree, then $e^{(\ln(2/2\pi))}$ multiply by $\pi/180$ times azimuth of 30 degree, radius vector is 1,059463094... then divide by 2.

The half of radiusvector is 0,529731547.. next to find the reciprocal value of half of radius vector in angle value of logarithmic spiral. $\ln 1/0,529731547 / \ln 2 * 360$ is 330 degree

§35

		curvature constant		$\pi/180$	sunrise azimuth	
1	2,718281828 ^ radius vector /2	0,1103178	*	0,017453293	*	30 = 1,059463094
	1/(radius/2) inversion	$\ln(1/r) / \ln(2) * 360$ sunset azimuth				
	0,529731547	1,887748625 330				
						sunset azimuth
	2,718281828 ^	0,1103178	*	0,017453293	*	330 = 1,887748625
		curvature constant		$\pi/180$	sunrise azimuth	
2	2,718281828 ^ radius vector /2	0,1103178	*	0,017453293	*	60 = 1,122462048
	1/(radius/2) inversion	$\ln(1/r) / \ln(2) * 360$ sunset azimuth				
	0,561231024	1,781797436 300				
						sunset azimuth
	2,718281828 ^	0,1103178	*	0,017453293	*	300 = 1,781797436
		curvature constant		$\pi/180$	sunrise azimuth	
3	2,718281828 ^ radius vector /2	0,1103178	*	0,017453293	*	90 = 1,189207115
	1/(radius/2) inversion	$\ln(1/r) / \ln(2) * 360$ sunset azimuth				
	0,594603558	1,681792831 270				
						sunset azimuth
	2,718281828 ^	0,1103178	*	0,017453293	*	240 = 1,587401052
		curvature constant		$\pi/180$	sunrise azimuth	
4	2,718281828 ^ radius vector /2	0,1103178	*	0,017453293	*	120 = 1,25992105
	1/(radius/2) inversion	$\ln(1/r) / \ln(2) * 360$ sunset azimuth				
	0,629960525	1,587401052 240				
						sunset azimuth

	2,718281828 ^		0,1103178 * 0,017453293 *	210 = 1,498307077
		curvature constant	pi/180	sunrise azimuth
5	2,718281828 ^		0,1103178 * 0,017453293 *	150 = 1,334839854
	radius vector /2	1/(radius/2) inversion	ln(1/r)/ ln(2)*360 sunset azimuth	
	0,667419927	1,498307077	210	
		210		sunset azimuth
	2,718281828 ^		0,1103178 * 0,017453293 *	180 = 1,414213562
		curvature constant	pi/180	sunrise azimuth
6	2,718281828 ^		0,1103178 * 0,017453293 *	180 = 1,414213562
	radius vector /2	1/(radius/2) inversion	ln(1/r)/ ln(2)*360 sunset azimuth	
	0,707106781	1,414213562	180	
		180		sunset azimuth
	2,718281828 ^		0,1103178 * 0,017453293 *	150 = 1,334839854
		curvature constant	pi/180	sunrise azimuth
7	2,718281828 ^		0,1103178 * 0,017453293 *	210 = 1,498307077
	radius vector /2	1/(radius/2) inversion	ln(1/r)/ ln(2)*360 sunset azimuth	
	0,749153538	1,334839854	150	
		150		sunset azimuth
	2,718281828 ^		0,1103178 * 0,017453293 *	120 = 1,25992105
		curvature constant	pi/180	sunrise azimuth
8	2,718281828 ^		0,1103178 * 0,017453293 *	240 = 1,587401052
	radius vector /2	1/(radius/2) inversion	ln(1/r)/ ln(2)*360 sunset azimuth	
	0,793700526	1,25992105	120	
		120		sunset azimuth
	2,718281828 ^		0,1103178 * 0,017453293 *	90 = 1,189207115
		curvature constant	pi/180	sunrise azimuth
9	2,718281828 ^		0,1103178 * 0,017453293 *	270 = 1,681792831
	radius vector /2	1/(radius/2) inversion	ln(1/r)/ ln(2)*360 sunset azimuth	
	0,840896415	1,189207115	90	
		90		sunset azimuth
	2,718281828 ^		0,1103178 * 0,017453293 *	330 = 1,887748625
		curvature constant	pi/180	sunrise azimuth
10	2,718281828 ^		0,1103178 * 0,017453293 *	270 = 1,681792831

	radius vector			*	*	
/2	1/(radius/2)	In(1/r)/ In(2)*360				
	inversion	sunset azimuth				
0,840896415	1,189207115	90				
	90					sunset azimuth
2,718281828	^	0,1103178	* 0,017453293	*	330 =	1,887748625
		curvature constant	pi/180			sunrise azimuth
11	2,718281828	^	0,1103178	* 0,017453293	*	300 = 1,781797436
radius vector						
/2	1/(radius/2)	In(1/r)/ In(2)*360				
	inversion	sunset azimuth				
0,890898718	1,122462048	60				
	60					sunset azimuth
2,718281828	^	0,1103178	* 0,017453293	*	330 =	1,887748625
		curvature constant	pi/180			sunrise azimuth
12	2,718281828	^	0,1103178	* 0,017453293	*	330 = 1,887748625
radius vector						
/2	1/(radius/2)	In(1/r)/ In(2)*360				
	inversion	sunset azimuth				
0,943874313	1,059463094	30				
	30					sunset azimuth
2,718281828	^	0,1103178	* 0,017453293	*	330 =	1,887748625
2,718281828	^	0,1103178	* 0,017453293	*	360 =	2

³³⁶But table above is not relation between azimuth and ecliptic angle(tilt) described. Therefore next table is at first azimuth in summer solstice on 21 th of June 2007 as present shifted tilt of 49,6603523° to compare to other place. Table is a small program that can change at once all date. This example is on 48 degree in latitude my home town Munich Germany. Azimuth of 30 degree change to arclength $30 \cdot (\pi/180)$ is 0,52359878 Munich in latitude 48,08° multiply by $\pi/180$, 0,83775804 as cosine of both value are 0,8660254 and 0,66913061, then multiply $\cos(\text{azimuth}) \cdot \cos(\text{latitude})$ is 0,57858493 arcsin of 0,57858493 is 0,61699266, 0,61699266 divide by $\pi/180$ is angle value of tilt of 35,3510755 degree which is smaller than 49,6603523° that mean this azimuth exist in Munich. But not exist in computer data in Internet that program based still on tilt of 23,4 °

§37

azimuth	Texas	axis shift			
26	32				
0,45378561	0,55850536	Shifted angle			
cos	cos	tilt			
0,89879405	0,8480481	0,76222058	0,86673666	49,6603523	26,2603523
azimuth	Munich				
	place				
30	48,08				
0,52359878	0,8391543				
cos	cos	tilt			
0,8660254	0,66809233	0,57858493	0,61699266	35,3510755	
azimuth	place	difference of			

					tilt
60	48,08				
1,04719755	0,8391543				15,8365294
cos	cos			tilt	
0,5	0,66809233	0,33404616	0,34059308	19,5145461	
90	48,08				
1,57079633	0,8391543				19,5145461
cos	cos			tilt	
6,1257E-17	0,66809233	4,0926E-17	4,0926E-17	2,3449E-15	
120	48,08				
2,0943951	0,8391543				19,5145461
cos	cos			tilt	
		-	-	-	
-0,5	0,66809233	0,33404616	0,34059308	19,5145461	
150	48,08				
2,61799388	0,8391543				-15,8365294
cos	cos			tilt	
		-	-	-	
-0,8660254	0,66809233	0,57858493	0,61699266	35,3510755	
180	48,08				
3,14159265	0,8391543				
cos	cos			tilt	
		-	-	-	
-1	0,66809233	0,66809233	0,73164202	-41,92	
210	48,08				
3,66519143	0,8391543				-6,56892452
cos	cos			tilt	
		-	-	-	
-0,8660254	0,66809233	0,57858493	0,61699266	35,3510755	
240	48,08				
4,1887902	0,8391543				-15,8365294
cos	cos			tilt	
		-	-	-	
-0,5	0,66809233	0,33404616	0,34059308	19,5145461	
270	48,08				
4,71238898	0,8391543				-19,5145461
cos	cos			tilt	
-1,8377E-		-1,2278E-	-1,2278E-	-7,0346E-	
16	0,66809233	16	16	15	
300	48,08				
5,23598776	0,8391543				19,5145461
cos	cos			tilt	
0,5	0,66809233	0,33404616	0,34059308	19,5145461	
330	48,08				
5,75958653	0,8391543				15,8365294
cos	cos			tilt	
0,8660254	0,66809233	0,57858493	0,61699266	35,3510755	
360	48				
6,28318531	0,83775804				6,64892452
cos	cos			tilt	
1	0,66913061	0,66913061	0,73303829	42	

§38

$$\begin{array}{rclclcl}
 2,71828182 & & 0,110317 & & 0,01745329 & & 1,12462532 \\
 8 \wedge & & 8 * & & 3 * & & 61 = 9 \\
 1,12462532 / & & 2 = & & 0,56231266 & &
 \end{array}$$

$$\ln \frac{1,77837004}{8} / \frac{\ln}{2} = \frac{0,8305555 * 360}{6} = = 299$$

§39 Same point came my visit at Einstein house in Bern/Swiss . Dr Max Flückiger*of Einstein society gave in my hand violin of Einstein,not only instrument but a Composition of a Swiss Composer a Fuga on Thema of Albert Einstein= fifth sing la,si,do,re,mi and Inversion EinsteinAlbert= forth sing mi,fa,so,la.: Welltemperd System by Johann Sebastien Bach is advanced than ratio from integer of 2 to 3 and 3 to 4. number means a whole length of string take as 4 then to whole length to 3 find the harmonic point and inversion is whole length take as 3 then harmonic point to whole length is 2 so fifth divide by 2 to (1/ (fifth divide by 2)) on Well temperd System is accord to astronomical azimuth is:

$$\begin{array}{ccccccc} 2,71828182 & & 0,110317 & & 0,01745329 & & 1,49830707 \\ 8 \wedge & & 8 * & & 3 * & & 210 = 7 \\ 1,49830707 & & & & 0,74915353 & & \\ 7 / & & 2 = & & 8 & & \end{array}$$

$$\ln \frac{1,33483985}{4} / \frac{\ln}{2} = \frac{0,41666666 * 360}{7} = = 150$$

§40 Max Flückger* after WIKIPEDIA The Albert Einstein Society was founded on 28 June 1977 by [Dr Max Flückiger](#). It is located in [Bern](#), [Switzerland](#) and is most noted for awarding the [Einstein Medal](#).^[1] This medal is awarded to individuals who have made an outstanding contribution to science that is related to the work of [Albert Einstein](#).

§41

$$\int_0^1 \frac{2^{\left(\frac{7}{12}\right)}}{2} dx = \left[\int_0^{360} \frac{\ln\left(2^{\left(\frac{7}{12}\right)}\right)}{\ln(2)} dx \right] = 210 \text{ degree} \left[\int_0^{360} \frac{\ln\left[\frac{2^{\left(\frac{7}{12}\right)}}{2}\right]}{\ln(2)} dx \right] = -150$$

degree

§42

$$\left[\int_0^{360} \frac{\ln\left[\frac{1}{\frac{7}{2^{12}}}\right]}{\ln(2)} dx \right] = 150^\circ$$

§43

$$\int_0^1 \frac{1}{\left(\frac{7}{2^{12}}\right)} dx = \int_0^1 \frac{7}{2^{12}} dx =$$

1.3348398541700343648 inversion is forth :Quart

1.498307076876681498 fifth :Quint

§44

$$\int_0^1 \frac{5}{2^{12}} dx =$$

1.334839854170034364

§45 Albert Einstein and Einstein Albert; same as Kepler a to b came to b to 2a. much much later I recognis by Sun rise azimuth and sunset Azimuth exact same principle of inversion that can exist only from curvature constant in polar coordinate system in the nature, the principle of symmetrie, an astonisch precision in distance of the sun to earth the final number 1 by Collatz number serie which is astronomical unit AU at the end of number sequence.

Existence of astronomical curvature constant.

§46

$dr := \ln(2)$ $d\phi := 2 \cdot \pi$ but symmetrical structure by curvature constant is invariant to rotation axis of Earth.

$$\frac{dr}{d\phi} =$$

.110317800076325796

§47

21 June	2011	sunrise 52°	sunset 308°	Sunrise azimuth
		pi/180		
2,718281828 ^	0,1103178 *	0,017453293 *		52 = 1,105304939
1,105304939 /	2 =	0,552652469		
1 /	0,552652469 =	1,809455409		
Ln 1,809455409 /	ln 2 =	0,855555556		
0,855555556 *360	=	308		

§48 But azimuth was not same as I had saw with Compas.

At 15 th of September 2007 represented by Truth Seeker. Uk report of axis shift of 26°. I was shocked and began to proof of report in my hometown . At first proof the Sunrise azimuth of satellite Photo by report, still to read if you give in google Axis Shift a large report is open.. rotation axis is 2888,888889 km shifted. Reason of shift was sun eruption on 5-6 th of December 2006. in first week of june 2011 ESA and NASA warnd by Radio in Munich the suns activity is presently very high since 5 years it mean since 2006 that was the year of shift of tilt..

But thanks god , this time azimuth was not changed.

Sattelite photo in Texas in report is sunrise azimuth of 26°.

sin(azimuth49,66035231° degree multiply by cos 32° Texas USA is azimuth at 21the June (sommer solstice) 2007, simple calculation certify the correctness of report, sunrise azimuth is 26° same as sattelit photo in report of Axis shift. Tilt is no more 23,4° but 49,66035231 degree.

Sin 49,66035... is 0,76220... divide by cos latitude of Texas USA is 0,89879...

arccos 0,89879 is 0,45378... then divide by pi/180 then azimuth of 26° came out.

§49

$$\begin{array}{ccccccc} & \cos 32^\circ & & & & & \\ & \text{Texas/USA} & & \arccos & & \text{AZIMUTH} & \\ 0,76222058 & / & 0,848048096 & = & 0,898794046 & 0,45378561 & 26 \end{array}$$

§50 Invariant to shift of tilt or localisation exist curvature constant 0,1103178... because example of Munich shows in same method used for azimuth in Texas, curvature constant makes that day in Texas sunset azimuth of 334°

§51

$$\begin{array}{ccccccc} 2,718281828 & \wedge & 0,1103178 & * & 0,017453293 & * & 26 = 1,051334837 \\ 1,051334837 & / & 2 & = & 0,525667418 & & \\ & 1 / & 0,525667418 & = & 1,902343507 & & \\ \text{Ln} & 1,902343507 & / & \ln & 2 & = & 0,927777778 \\ 0,927777778 & * & 360 & 334 & & & \end{array}$$

§52 We think double relation with multiplication by 2 or divide by 2., but for example $4*2=8$ but exponent for half and double is different. $8/2=4$ $8*2=16$ which is last number sequence by Collatz of Collatz series 16,8,4,2,1. number for previous example of a to b then b to 2a the number 2 and 3 then inversion from 4 and 3

$8^{(2/3)}$ is half of number of 8 then $8^{(2/3)}$ is 4 and $8^{(4/3)}$ is double value of $8=16$

Value of exponent for this question is n to n+1 as this number table shows. $\ln 8/\ln 4$ is 1,5 not 2. its go from 2/1 to 3/2, 4/3, 5/4, 6/5... left side of table is progression of 2^n . then $\ln 8/\ln 4$ is (3/2)1,5, double value 16 and 8 is

$16/\ln 8$ is exponent (4/3). $\ln 32/\ln 16$ is 5/4

§53

2048 LN	2048 / LN 2 = LN	2048 / LN	1024 =	1,1
1024 LN	1024 / LN 2 = LN	1024 / LN	512 =	1,11111111
512 LN	512 / LN 2 = LN	512 / LN	256 =	1,125
256 LN	256 / LN 2 = LN	256 / LN	128 =	1,14285714
128 LN	128 / LN 2 = LN	128 / LN	64 =	1,16666667
64 LN	64 / LN 2 = LN	64 / LN	32 =	1,2
32 LN	32 / LN 2 = LN	32 / LN	16 =	1,25
16 LN	16 / LN 2 = LN	16 / LN	8 =	1,33333333
8 LN	8 / LN 2 = LN	8 / LN	4 =	1,5
4	LN	4 / LN	2 =	2

§54 primnumber 2^n if $3*2^n$ or $5*2^n$ frequency on piano recognise all basis frequency as same tone. This is by Collatz number selection as reason of stop the sequence, because if basis is oddnumber not continue to 2^n Titius number is $3*2^n$ in main structure pitch is

about “g” to write part of Titius equation $3 \cdot 2^n$ in exponential function under curvatut constant of $\ln 2/2 \cdot \pi$

^{§55} But not every ratio of 2:1 result straight back to 16,8,4,2,1. for example start by 40
 40,20,10,5 end by odd number 5

How many step need back to 1? To know the relation between start number and periode length is very simple

^{§56} Methode is very simple, but at first we must know the periode length.

1	2	3	4	5	6	7	8	
7	22	11	34	17	52	26	13	
9	10	11	12	13	14	15	16	17
40	20	10	5	16	8	4	2	1

^{§57} Collatz conjecture has by start number 7 has 17 step to back to number 1.

periode length	start number				
L	1	1,45598364	0,45598364	2,42857142	
n	17 / n	7	1	1	9 *

$$7 * 2,428571429 = 17$$

^{§58} Ln periode length 17 divide start number 7 result 1,455983641, then subtract 1 from 1,455983641 number is 0,455983641, then start number $7^{(0,455983641)}$ is 2,428571429, this value 2,428571429 multiply by start number 7 answer is 17 that identify periode length.

Reason of end by 5 is for example 40:20 is in form of $n \cdot 2^n$, $n=5$, $5 \cdot 2^n$ so 40 to 20 is $5 \cdot 2^3=40$ and

^{§59} $5 \cdot 2^n=20$ even number became by Collatz sequence end by odd number means $N \cdot 2^n$ back to N if N is an odd number then stop the Collatz sequence and multiply by 3 and add 1.

exponent on basis

of 2	2*2^ _n	3*2^ _n	4*2^ _n	5*2^ _n	6*2^ _n	7*2^ _n	8*2^ _n	
8	3	6	24	32	40	48	56	64
4	2	4	12	16	20	24	28	32
	1,5	1,29248125	1,278942946	1,25	1,231378213	1,218104292	1,208014598	1,2
	8		12	16	20	24	28	32
	4	3	6	8	10	12	14	16
	2	stop!	3	4	10	6	7	
	1		stop!	2	5	3		
				1	stop!			
go!			go!			stop!	stop!	go!

^{§60} In the table where is note operation Stopp! by odd number.

Collatz theorem say then multiplay by 3 and add 1 next table is all number n without ask if a number is even or odd ,multiply by 3. this number is reciprocal number of 27 reciprocal number of 81 is 1,2,3,4,5,6 as next number table shows.

§61

	1	2	3	4	5	6	7	8	9
	0,1	0,02	0	0,0004	0,00005	0,000006	0,0000007	0,00000008	9E-09 0,12345679
exponent	2	3	4	5	6	7	8	9	
	100	1000	10000	100000	1000000	10000000	100000000	1000000000	

... then all number multiply by 3 results reciprocal number of 27. 0,370370370370...

§62

$$\int_0^1 \left(\frac{1}{.037037037037037037} \right) dx =$$

	3	6	9	12	15	18	21	24	
	0,3	0,06	0,01	0,0012	0,00015	0,000018	0,0000021	0,00000024	0,37037034
exponent	2	3	4	5	6	7	8		
	100	1000	10000	100000	1000000	10000000	100000000		

§63

$$\int_0^1 3 \cdot \left(\frac{1}{81} \right) dx =$$

$$.037037037037037037 \int_0^1 \left(\frac{1}{81} \right) dx =$$

.0123456790123456790

$$\frac{1}{9} =$$

§64 Add 1 by Collatz theorem means for infinite sequence is to add .111111111111111111
means add reciprocal number of 9

$$\int_0^1 \left(.037037037037037037 + \frac{1}{9} \right) dx =$$

.14814814814814814815

§65 Answer for all 3n+1 number is 81 divide by 12 of

$$\int_0^1 \frac{1}{\left(\frac{81}{12} \right)} dx =$$

6,75. reciprocal number is 0,148148148... .1481481481481481481

§66

$$\int_0^1 \left(\frac{81}{12} \right) dx =$$

6.75 all number without choice even or odd number of Collatz theorem or 3n+1 problem.

§67 All number times 3+1 is reciprocal number of 6,75.

§68 First 8 step of all number times 3 then add 1, the reciprocal number of 6,75. its continue endless number are divide by 10^n.

	4	7	10	13	16	19	22	25	28
	0,4	0,07	0,01	0,0013	0,00016	0,000019	0,0000022	0,00000025	2,8E-08 0,48148148
exponent	2	3	4	5	6	7	8	9	
	100	1000	10000	100000	1000000	10000000	100000000	1000000000	
	1		3						
	2		6						
	3		9						
	4		12						
	5		15						
	6		18						
	7		21						
	8		24						
	9		27						
	10		30						
	11		33						
	12		36						
	13		39						
	14		42						
	15		45						
	16		48						
	17		51						
	18		54						

§69

$$\left[\left[\int_0^1 \frac{\ln(40)}{\ln(20)} dx \right] \right] = 1.231$$

§70

$$\int_0^1 \frac{19}{2^{12}} \cdot e^{\left(\frac{\ln(2)}{2 \cdot \pi} \right) \cdot \left(\frac{\pi}{180} \right) \cdot (360 \cdot n)} dx =$$

§71

or set number 3 after definition by Titius and add 4.

§72

Second Stepp by Titius equation, n=2 result is 10 same as Collatz number 3*3+1=10.

n=2 then radius vector is 5.993, about 6. all number as frequency recognise as 3 if 3Hz is basic tone . For example interval of fifth has 1,5 of basis frequency but 1,5*2^n recognise all pitch of fifth, for example basis frequency is c, all 1,5*2^n recognise as ton g.

One step before is for example (n-1)/3 16-1=15 15/3=5

n	2^n	$\frac{\ln(2^n)}{\ln(2)}$		
20	1048576	20	349525 *3+1=	1048576
19	524288	19		
18	262144	18	87381 *3+1=	262144
17	131072	17		

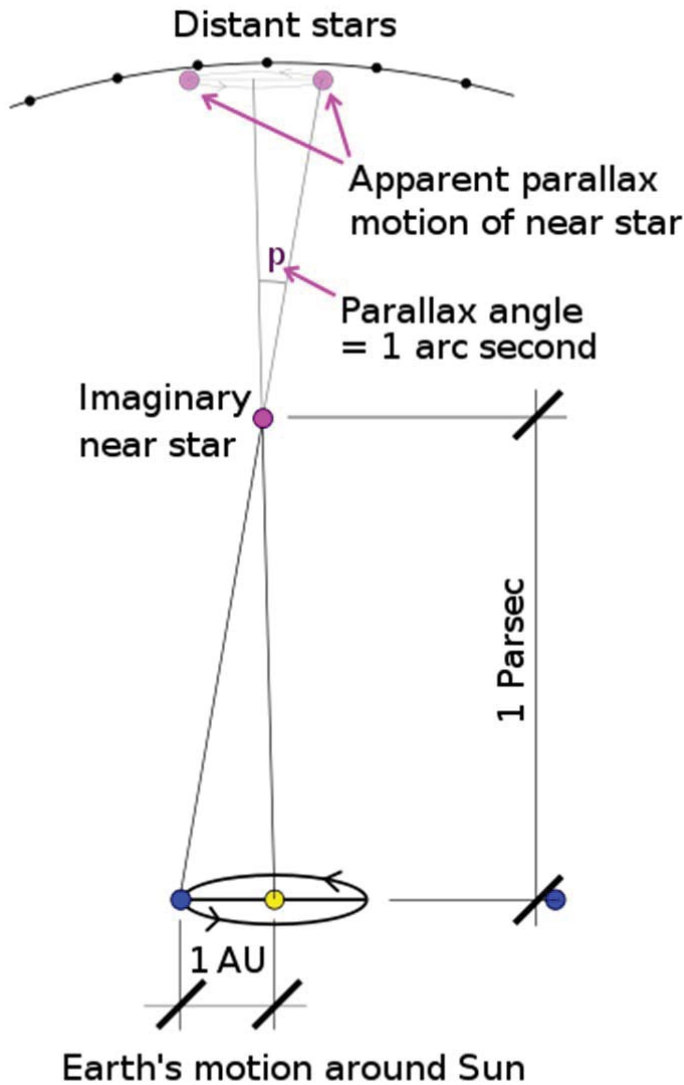
16	65536	16	21845	*3+1=	65536
15	32768	15			
14	16384	14	5461	*3+1=	16384
13	8192	13			
12	4096	12	1365	*3+1=	4096
11	2048	11			
10	1024	10	341	*3+1=	1024
9	512	9			
8	256	8	85	*3+1=	256
7	128	7			
6	64	6	21	*3+1=	64
5	32	5			
4	16	4	5	*3+1=	16
3	8	3			
2	4	2	1	*3+1=	4
1	2	1	0	*3+1=	1

§73 All odd number times 3 then add 1

$$\int_0^1 \left(\frac{1}{81} + \frac{1}{810} \right) \cdot 3 + \frac{1}{9} dx = .151851851851851851$$

§74 Table shows all frequency of 261,62565Hz*2^n recognise a straight line, because all frequency are same pitch of c. besed by g then all g*2^n recognise as g.

131072	34291786,1	Hz	C	51379625,8	Hz=	g	391,995436
65536	17145893	Hz	C	25689812,9	Hz=	g	391,995436
32768	8572946,52	Hz	C	12844906,4	Hz=	g	391,995436
16384	4286473,26	Hz	C	6422453,22	Hz=	g	391,995436
8192	2143236,63	Hz	C	3211226,61	Hz=	g	391,995436
4096	1071618,32	Hz	C	1605613,31	Hz=	g	391,995436
2048	535809,158	Hz	C	802806,653	Hz=	g	391,995436
1024	267904,579	Hz	C	401403,326	Hz=	g	391,995436
512	133952,289	Hz	C	200701,663	Hz=	g	391,995436
256	66976,1447	Hz	C	100350,832	Hz=	g	391,995436
128	33488,0724	Hz	C	50175,4158	Hz=	g	391,995436
64	16744,0362	Hz	C	25087,7079	Hz=	g	391,995436
32	8372,01809	Hz	C	12543,854	Hz=	g	391,995436
16	4186,00904	Hz	C	6271,92698	Hz=	g	391,995436
8	2093,00452	Hz	C	3135,96349	Hz=	g	391,995436
4	1046,50226	Hz	C	1567,98174	Hz=	g	391,995436
2	523,251131	Hz	C	783,990872	Hz=	g	391,995436
1	261,625565	Hz	C	391,995436	Hz=	g	391,995436



^{§75}Collatz number and Titius

numbers are in unit of AU as a diagram by Wikipedia shows

Parsec has distance of 3.085678×10^{16} m

^{§76}Astronomical unit is 149576985 km
^{§77}

$$\frac{\int_0^{10^8} \left[\left(\frac{1}{19} \right) \sqrt{810} \right] dx}{149597870} = 1.0012983453052265344$$

^{§78}

$$\frac{\int_0^{10^8} \left[\left(\frac{1}{19} \right) \sqrt{810} \right] dx}{1.0012983453052265344} = 149597870.0 \text{ AU}$$

^{§79}later Collatz number convert as nth 1/19, again Collatz number convert to astronomical unit AU by square root from 810 as formel above shows.

§80 Relation of Titius number to reciprocal number serie of 19, $(4+3*n)/(1/19)$ for example
4 divide by reciprocal number of 19 is 76. this is 19 times 4, 4 is Titius sequence for Mercury.

	Titius number	
Mercury	4 $4+3*0$	$4 / (1/19) = 76 = 19* 4$
Venus	7 $4+3*1$	$7 / (1/19) = 133 = 19* 7$
Earth	10 $4+3*2$	$10 / (1/19) = 190 = 19* 10$
Mars	16 $4+3*4$	$16 / (1/19) = 304 = 19* 16$
Ceres	28 $4+3*8$	$28 / (1/19) = 532 = 19* 28$
Jupiter	52 $4+3*16$	$52 / (1/19) = 988 = 19* 52$
Saturn	100 $4+3*32$	$100 / (1/19) = 1900 = 19* 100$
Uranus	196 $4+3+64$	$196 / (1/19) = 3724 = 19* 196$

§81

$$\int_0^1 \frac{1}{19} dx =$$

.05263157894736842105263157894736842105263157894736842105;

§82

2^n	exponent n		add +1 to make odd number		Odd and primenumber
					1
2^n	0 =	1		only one even prime number	2
2^n	1 =	2 +		1 =	3
2^n	2 =	4 +		1 =	5
2^n	3 =	8 +		1 =	9
2^n	4 =	16 +		1 =	17
2^n	5 =	32 +		1 =	33
2^n	6 =	64 +		1 =	65
2^n	7 =	128 +		1 =	129

2^n	8 =	256 +	1 =	257
2^n	9 =	512 +	1 =	513
2^n	10 =	1024 +	1 =	1025
2^n	11 =	2048 +	1 =	2049
2^n	12 =	4096 +	1 =	4097
2^n	13 =	8192 +	1 =	8193
2^n	14 =	16384 +	1 =	16385
2^n	15 =	32768 +	1 =	32769
2^n	16 =	65536 +	1 =	65537
2^n	17 =	131072 +	1 =	131073
2^n	18 =	262144 +	1 =	262145
2^n	19 =	524288 +	1 =	524289
2^n	20 =	1048576 +	1 =	1048577
2^n	21 =	2097152 +	1 =	2097153
2^n	22 =	4194304 +	1 =	4194305
2^n	23 =	8388608 +	1 =	8388609
2^n	24 =	16777216 +	1 =	16777217

§83

First step by Titius equation is $3 \cdot 2^n$
 2^n divide by 10^n is sum of limit 1,25.

§84

N	0	1	2	3	4	5	6	7	8	9	10
2^n	1	2	4	8	16	32	64	128	256	512	1024
10^n	1	10	100	1000	10000	100000	1000000	10000000	100000000	1000000000	10000000000
$2^n/10^n$	1	0,2	0,04	0,008	0,0016	0,00032	0,000064	0,0000128	0,00000256	0,000000512	1,024E-07

§85

All natural number n,1,2,3,4,5,6... describe as reciprocal number of $81=9^2=3^4$

1 2 3 4 5 6

10^1 10^2 10^3 10^4 10^5 10^6
0,1 0 0,003 0,0004 0,00005 0,000006

§86

$$\int_0^1 \frac{1}{\frac{1}{8.1} + \frac{1}{81}} dx =$$

§87 All odd number is reciprocal number of 1/ 7.3636363636363636

$$\int_0^1 \frac{1}{810} + \frac{1}{81} dx =$$

§88 same as reciprocal number serie of 810 and 81

.135802469135802469

§89 Collatz Theorem define, if a number n is odd then multiply by number 3.

$$\int_0^1 \left(\frac{1}{8.1} + \frac{1}{81} \right) \cdot 3 dx =$$

.40740740740740740739

§90 then ad 1 means all odd number serie times 3 plus reciprocal

$$\text{number of 9} \left[\int_0^1 \left(\frac{1}{8.1} + \frac{1}{81} \right) \cdot 3 dx + \frac{1}{9} \right] =$$

.51851851851851851851 §91 same as reciprocal number

$$\text{serie from 81 divide by } \frac{1}{\left(\frac{81}{42} \right)} =$$

$$\frac{81}{\left(\frac{1}{.5185185185185185} \right)} = 42$$

§92 81/42 is all Collatz or 3n+1 numbers as reciprocal number serie.

§93

Titius
equation
4+3*2^n

			3*0=	0
2^n	0 =	1		3
2^n	1 =	2 *	3*2^n	6
2^n	2 =	4 +	3*2^n	12
2^n	3 =	8 +	3*2^n	24
2^n	4 =	16 +	3*2^n	48
2^n	5 =	32 +	3*2^n	96
2^n	6 =	64 +	3*2^n	192
2^n	7 =	128 +	3*2^n	384

2^n	8 =	256 +	$3 \cdot 2^n$	768
2^n	9 =	512 +	$3 \cdot 2^n$	1536
2^n	10 =	1024 +	$3 \cdot 2^n$	3072
2^n	11 =	2048 +	$3 \cdot 2^n$	6144
2^n	12 =	4096 +	$3 \cdot 2^n$	12288
2^n	13 =	8192 +	$3 \cdot 2^n$	24576
2^n	14 =	16384 +	$3 \cdot 2^n$	49152
2^n	15 =	32768 +	$3 \cdot 2^n$	98304
2^n	16 =	65536 +	$3 \cdot 2^n$	196608
2^n	17 =	131072 +	$3 \cdot 2^n$	393216
2^n	18 =	262144 +	$3 \cdot 2^n$	786432
2^n	19 =	524288 +	$3 \cdot 2^n$	1572864
2^n	20 =	1048576 +	$3 \cdot 2^n$	3145728
2^n	21 =	2097152 +	$3 \cdot 2^n$	6291456
2^n	22 =	4194304 +	$3 \cdot 2^n$	12582912
2^n	23 =	8388608 +	$3 \cdot 2^n$	25165824
2^n	24 =	16777216 +	$3 \cdot 2^n$	50331648

^{§94}As Number table of Collatz and Titius shows ,both results on exact same numbers.
To divide by 10 for AU unit by number 10.

^{§95}

N	Collatz definition	Collatz definition $N \cdot 3 + 1$	divide by 10	
1	$\cdot 3 + 1 =$	4	4	0,4
2	$\cdot 3 + 1 =$	7	7	0,7
3	$\cdot 3 + 1 =$	10	10	1
5	$\cdot 3 + 1 =$	16	16	1,6
9	$\cdot 3 + 1 =$	28	28	2,8
17	$\cdot 3 + 1 =$	52	52	5,2
33	$\cdot 3 + 1 =$	100	100	10
65	$\cdot 3 + 1 =$	196	196	19,6
129	$\cdot 3 + 1 =$	388	388	38,8
257	$\cdot 3 + 1 =$	772	772	77,2

513	*3+1=	1540	*3+1=	1540	154
1025	*3+1=	3076	*3+1=	3076	307,6
2049	*3+1=	6148	*3+1=	6148	614,8
4097	*3+1=	12292	*3+1=	12292	1229,2
8193	*3+1=	24580	*3+1=	24580	2458
16385	*3+1=	49156	*3+1=	49156	4915,6
32769	*3+1=	98308	*3+1=	98308	9830,8
65537	*3+1=	196612	*3+1=	196612	19661,2
131073	*3+1=	393220	*3+1=	393220	39322
262145	*3+1=	786436	*3+1=	786436	78643,6
524289	*3+1=	1572868	*3+1=	1572868	157286,8
1048577	*3+1=	3145732	*3+1=	3145732	314573,2
2097153	*3+1=	6291460	*3+1=	6291460	629146
4194305	*3+1=	12582916	*3+1=	12582916	1258291,6
8388609	*3+1=	25165828	*3+1=	25165828	2516582,8
16777217		50331652		50331652	5033165,2

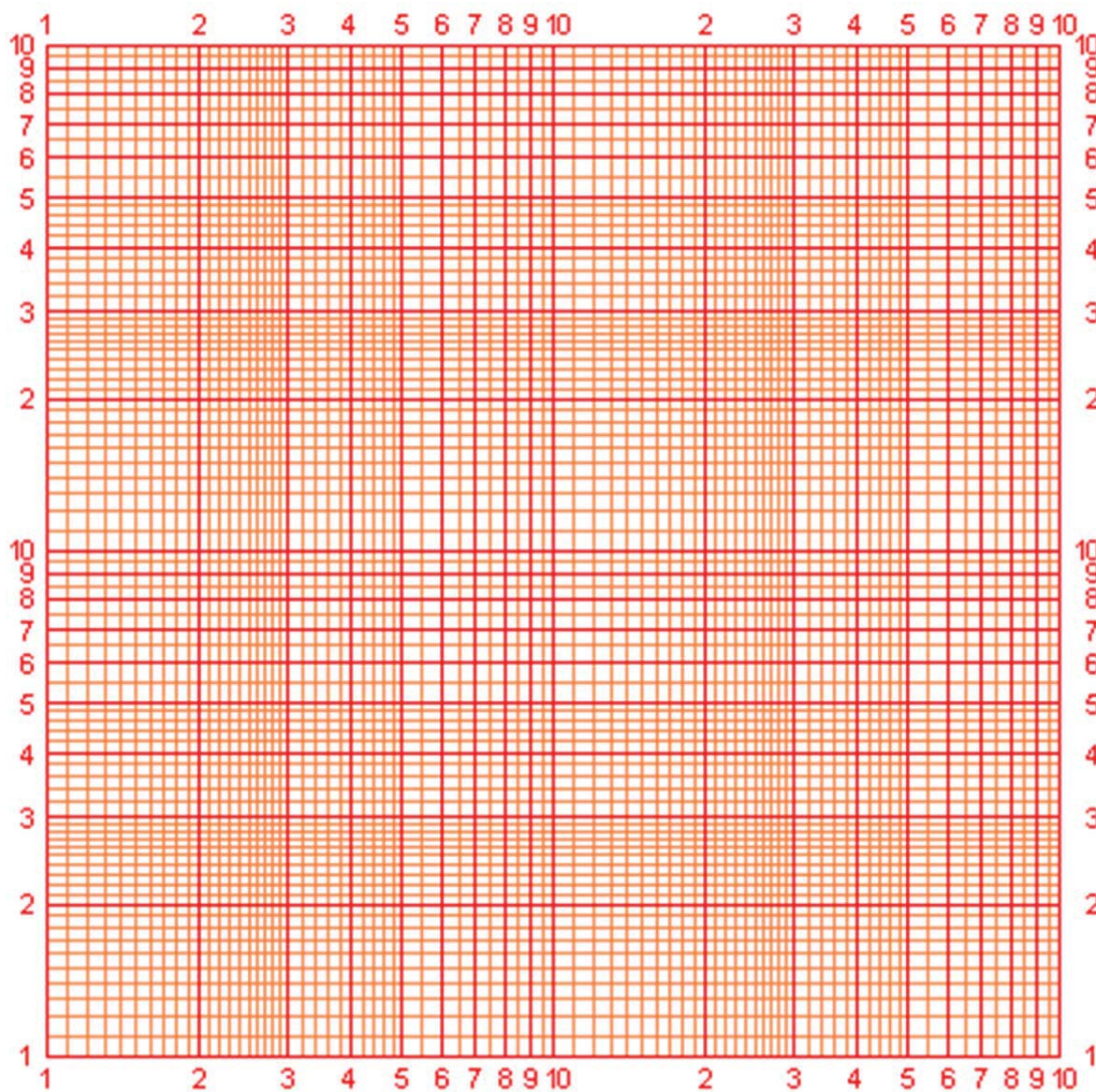
§96 Titius
definition

				divide by 10	
0	+4=	4	+4=	4	0,4
3	+4=	7	+4=	7	0,7
6	+4=	10	+4=	10	1
12	+4=	16	+4=	16	1,6
24	+4=	28	+4=	28	2,8
48	+4=	52	+4=	52	5,2
96	+4=	100	+4=	100	10
192	+4=	196	+4=	196	19,6
384	+4=	388	+4=	388	38,8
768	+4=	772	+4=	772	77,2
1536	+4=	1540	+4=	1540	154
3072	+4=	3076	+4=	3076	307,6
6144	+4=	6148	+4=	6148	614,8
12288	+4=	12292	+4=	12292	1229,2
24576	+4=	24580	+4=	24580	2458
49152	+4=	49156	+4=	49156	4915,6
98304	+4=	98308	+4=	98308	9830,8
196608	+4=	196612	+4=	196612	19661,2
393216	+4=	393220	+4=	393220	39322
786432	+4=	786436	+4=	786436	78643,6
1572864	+4=	1572868	+4=	1572868	157286,8
3145728	+4=	3145732	+4=	3145732	314573,2
6291456	+4=	6291460	+4=	6291460	629146
12582912	+4=	12582916	+4=	12582916	1258291,6
25165824	+4=	25165828	+4=	25165828	2516582,8
50331648	+4=	50331652	+4=	50331652	5033165,2

§97 Difference between Collatz number and real distance of planets.

§98 Mathematicien Karl Strubecker presented in his introduction into higher of Mathematics

§99 Einführung in die höhere Mathematik R Oldenburg Verlag München Wien 1966.
on page 806 in II volume, double logarithmic paper following Diagram of third law of Kepler.

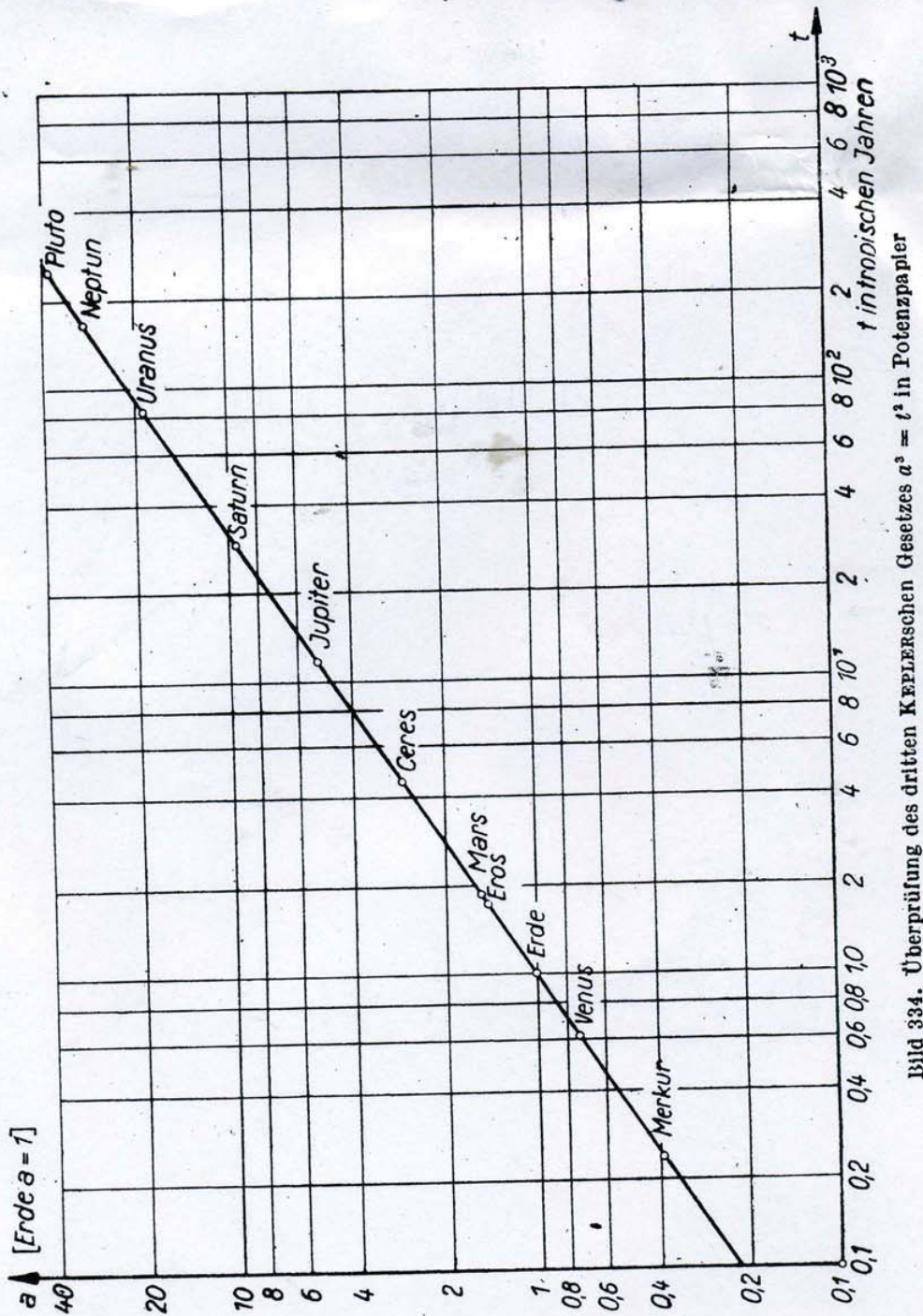


§100 Double logarithmic paper (from Wikipedia)

§101 With his definition Distance= time^{^(2/3)}, number value is not far defference by Titius Number and Collatz number, means Collatz number has same tangens value of 2/3.

$$\left[\left[\begin{array}{c} \bullet 1 \\ \bullet 0 \end{array} \right] \frac{\operatorname{atan}\left(\frac{2}{3}\right)}{\left(\frac{\pi}{180}\right)} dx \right] = 33.69 \text{ degree}$$

§102

Bild 334. Überprüfung des dritten KEPLERSchen Gesetzeses $a^3 = t^2$ in Potenzpapier

Beispiel 5: Nach der *Rubnerschen Oberflächenregel* soll für zahlreiche gleichartige Lebewesen zwischen der Größe S des *Stoffwechsels* (O_2 -Aufnahme, CO_2 -Abgabe, Kalorienproduktion je Zeiteinheit) und dem *Gewichte* G [kg] der Lebewesen ein *Potenzgesetz* der Form

$$S = A \cdot G^{\frac{2}{3}} \quad (196.11)$$

bestehen, und zwar deshalb, weil der Stoffwechsel S mit der Oberfläche O , das Gewicht G aber mit dem Volumen V der Lebewesen geht, d. h., daß S und O proportional dem Quadrate, G und V proportional dem Kubus einer Lineardimension l der Lebe-

	divide by 10		real distance		§104 difference between Collatz number and real distance
4	0,4	0,387	Mercury		0,013
7	0,7	0,723	Venus		-0,023
10	1	1	Earth		0
16	1,6	1,52	Mars		0,08
28	2,8	2,77	Ceres		0,03
52	5,2	5,2	Jupiter		0
100	10	9,56	Saturn		0,44
196	19,6	19,2	Uranus		0,4
388	38,8	39,5	Pluto		-0,7

§105 Collatz number as distance of planet from the sun. then Collatz number is $\text{time}^{(2/3)}$

§106 An application: keen discussed planet X has period of 3600 year, how far is the distance?

$$\int_0^1 (3600^2)^{\frac{1}{3}} dx =$$

§107 answer is distance from the sun of 234.892 Au. This is Collatz number of 78. here is not asked number value is odd or even number, so accord to third law by Kepler $t^2 = d^3$ even number 78 multiply by 3 and add 1 like oddnumber. $78 \cdot 3 + 1 = 235$, time^2 and take one third of t^2 is Collatz number 78 for distance in

$$\begin{aligned} & \int_0^{149597870.691} (3600^2)^{\frac{1}{3}} dx = 3.514 \cdot 10^{10} \\ & \frac{35139351789.357590655}{1000} = 3.514 \cdot 10^7 \end{aligned}$$

unit of astronomic. In kilometer 35139351.789357590655 kilometer
 $\frac{35139351.789357590655}{299792.458} =$

by velocity of light of 117.212 second.

$$\left[\int_0^1 \frac{\text{atan} \left[10^{\left(\frac{1}{2^{12}} \right)} \right]}{\frac{\pi}{180}} dx \right] =$$

§109: interesting factor is inclination angle of Planet X has 85 degree

$$\frac{\log(11.467)}{2^{\left(\frac{1}{12} \right)}} =$$

§110 If inclination angle is 85.016 degree, then 1

$$\int_0^1 e^{\left(\frac{\ln(2)}{2 \cdot \pi} \right) \cdot \left(\frac{\pi}{180} \right) \cdot \left(\frac{\ln(2)}{\ln(2)} \cdot 30 \right)} dx = \int_0^1 \left[10^e^{\left(\frac{\ln(2)}{2 \cdot \pi} \right) \cdot \left(\frac{\pi}{180} \right) \cdot \left(\frac{\ln(2)}{\ln(2)} \cdot 30 \right)} \right] dx =$$

1.0594630943592952646

11.467

§111 Maya unit of Hunab accord to inclination angle of Planet X.

§112 Resercher Marschall Masters gave 237.5 Au. Difference is here not so important, important is to know the Planet X is still in the third law by Kepler, if Focus of Planet is far away behind of Pluto.

§113

	distance	d^3	time=square root from time^(2/3)	distance=
Mercury	0,387	0,0579606	0,24075008	0,387
		0		
Venus	0,723	0,37793307	0,61476261	0,723
		0		
Earth	1	1	1	1
		0		
Eros	1,46	3,112136	1,76412471	1,46
		0		
Mars	1,52	3,511808	1,87398186	1,52
		0		
Ceres	2,77	21,253933	4,6101988	2,77
		0		
Jupiter	5,2	140,608	11,8578244	5,2
		0		
Saturn	9,56	873,722816	29,5588027	9,56
		0		
Uranus	19,2	7077,888	84,1301848	19,2
		0		
Neptune	30,1	27270,901	165,139035	30,1
		0		
Pluto	39,5	61629,875	248,253651	39,5

§114 Genery this number values used for certification of third law by Kepler in double logarithmic paper as a strait line, this means Collatz number has same tangens value of 2/3.

difference between Collatz number and time
and real distance

			time from Collatz number	difference
Mercury	0,013	0,24075008	0,25298221	0,01223213
	-			
Venus	0,023	0,61476261	0,58566202	0,02910059
Earth	0	1	1	0
Mars	0,08	1,87398186	2,0238577	0,14987585
Ceres	0,03	4,6101988	4,68529615	0,07509735
Jupiter	0	11,8578244	11,8578244	0
Saturn	0,44	29,5588027	31,6227766	2,06397392
Uranus	0,4	84,1301848	86,772899	2,64271416
Pluto	-0,7	248,253651	241,683827	6,56982401

§115 In table is time^2/distance^3 took as 1 but this is famous constant from third law by Kepler.

T^2/Collatz number ^3 is not 1 with tiny value differe by third law by Kepler.

^{§116} An example from Collatz number with number 11, question is if number from 5 growing each step by 20 instead of progression of 2, what number came out?

11,34,17,52,26,13,40,20,10,5,16,8,4,2,1, number table is Collatz last sequence change to
64000000,3200000,160000,8000,400,20,1

[illegible]

^{\$117\$}Sum of number from 5 in progression of 20 became reciprocal value of prime number 19.
Equation for this progression is: $5 \cdot 20^n$

[illegible]

^{§118}Number value of table is same as following sequence that is reciprocal number 19 times

$$\frac{1}{95} = .0105263157894736842105263157894736842105263157894736842$$
$$\int_0^1 \left[\frac{1}{(20)^0} + \frac{1}{(20)^1} + \frac{1}{(20)^2} + \frac{1}{(20)^3} + \frac{1}{(20)^4} + \frac{1}{(20)^5} + \frac{1}{(20)^6} + \frac{1}{(20)^7} + \frac{1}{(20)^8} + \frac{1}{(20)^9} \right] dx = 1.0526315789472656$$

§127 Basic calculation on relativity theory by Einstein.

Velocity of electron is easy to calculate.

2 times of elementary charge divide by rest mass of electron, velocity of 593 kilometer/second.

2n		elementary	elementary	rest mass of electron	velocity/kilometer	
N	electric charge	charge	charge			
1	3,20435E-19	1,60218E-19		9,10938E-31	593,0969715	quotient
2	6,40871E-19	1,60218E-19		9,10938E-31	838,7657809	1,414213562
3	9,61306E-19	1,60218E-19		9,10938E-31	1027,274088	1,224744871
4	1,28174E-18	1,60218E-19		9,10938E-31	1186,193943	1,154700538
5	1,60218E-18	1,60218E-19		9,10938E-31	1326,205145	1,118033989
6	1,92261E-18	1,60218E-19		9,10938E-31	1452,784948	1,095445115
7	2,24305E-18	1,60218E-19		9,10938E-31	1569,18709	1,08012345
8	2,56348E-18	1,60218E-19		9,10938E-31	1677,531562	1,069044968
9	2,88392E-18	1,60218E-19		9,10938E-31	1779,290914	1,060660172
10	3,20435E-18	1,60218E-19		9,10938E-31	1875,537303	1,054092553
11	3,52479E-18	1,60218E-19		9,10938E-31	1967,080119	1,048808848
12	3,84522E-18	1,60218E-19		9,10938E-31	2054,548177	1,044465936

§128 Collatz conjecture and Einstein serie became analog at the quotient.

At first from table is not to recognise final sequence of Collatz conjecture like 16,8,4,2,1

§129 To recognise the congruent between Collatz conjecture and theory by Einstein is at first quotient of velocity under energy unit of electron Volt.

By Collatz conjecture is number value 4,8,16,32... by modulo 2 dividieble but $\ln 4/\ln 2$ is 2 next value $\ln 8/\ln 4$ is not 2 but 1,5.

Arithmetic of Basis of Einsteins Energy electron Volt is ground structure at first useful table meV, keV, MeV, GeV, TeV, PeV, and BeV redirect here. For other uses, see [MEV](#), [KEV](#), [GEV](#), [TeV](#), [PEV](#), and [BEV](#).

§130 In [physics](#), the **electron volt** (symbol **eV**; also written **electronvolt**^{[1][2]}) is a unit of [energy](#) equal to approximately 1.602×10^{-19} [joule](#) (symbol **J**). By definition, it is equal to the amount of [kinetic energy](#) gained by a single [unbound electron](#) when it [accelerates](#) through an [electric potential difference](#) of one [volt](#). Thus it is 1 [volt](#) (1 joule per [coulomb](#), 1 J/C) multiplied by the [electron charge](#) (1 e, or $1.602176565(35) \times 10^{-19}$ [C](#)). Therefore, one electron volt is equal to $1.602176565(35) \times 10^{-19}$ [J](#).^[3] Historically, the electron volt was devised as a standard unit of measure through its usefulness in [electrostatic particle accelerator](#) sciences because a particle with charge q has an energy $E=qV$ after passing through the potential V; if q is quoted in integer units of the [elementary charge](#) and the terminal bias in volts, one gets an energy in eV.

§131

1,414213562 * 1,22474487 * 1,15470054 = 2

1,414213562 multiple by 1,22474487 again multiple by 1,15470054 is 2

First value became from square root from $\ln 4/\ln 2=2$

Second value came from $\ln 8/\ln 4=1,5$

The third value came from $\ln 16/\ln 8=1,3333333$

Product from $2*1,5*1,3333333$ is 4, square root from 2 is 1,41421356, square root from 1,5 is 1,22474487 square root from 1,3333333 is 1,15470054, so multiplication of three value is 2. this number value are nothing els than famil ar number serie by Collatz 4 and 2 8 and 4 16

and 8. Collatz conjecture build number sequence if a number is odd then multiply by 3 and add 1, in same order we can write $3n+1$ following way.

3 is $1 \cdot 1,41421356 \cdot 1,22474487 \cdot 1,15470054 \cdot 1,11803399 \cdot 1,09544512 \cdot 1,08012345$

§132

$$\left[\left[\left[\int_0^1 \sqrt{\frac{\ln(2)}{\ln(2)}} \cdot \sqrt{\frac{\ln(4)}{\ln(2)}} \cdot \sqrt{\frac{\ln(8)}{\ln(4)}} \cdot \sqrt{\frac{\ln(16)}{\ln(8)}} dx \right] \right] \right] = 2$$

Ln		4 /	ln	2 =	2 1,41421356
Ln		8 /	ln	4 =	1,5 1,22474487
Ln		16 /	ln	8 =	1,33333333 1,15470054
1	2	3	4	5	6

1 *	1,414213562	*	1,224744871	*	1,154700538	*	1,118033989	*	1,095445115
			1,732050808		2		2,236067977		2,449489743
	7		8		9				

*	1,08012345	*	1,069044968	*	1,060660172	=	3
	2,645751311		2,828427125				3

§133

$$\left[\left[\left[\int_0^1 \sqrt{\frac{\ln(2)}{\ln(2)}} \cdot \sqrt{\frac{\ln(4)}{\ln(2)}} \cdot \sqrt{\frac{\ln(8)}{\ln(4)}} \cdot \sqrt{\frac{\ln(16)}{\ln(8)}} \cdot \sqrt{\frac{\ln(32)}{\ln(16)}} \cdot \sqrt{\frac{\ln(64)}{\ln(32)}} \cdot \sqrt{\frac{\ln(128)}{\ln(64)}} \cdot \sqrt{\frac{\ln(256)}{\ln(128)}} \cdot \sqrt{\frac{\ln(512)}{\ln(256)}} dx \right] \right] \right] = 3$$

§134 All number are modulo 2 but by calculation of energy electron Volt take quotient from exponent and again take square root from them

§135

$2 \cdot 3 + 1 = 7$ in electron Volt arithmetic is long, if once understand the structure that is based on 2^n , no more need this form of basis calculation.

§136

$$\left[\left[\left[\int_0^1 \sqrt{\frac{\ln(2)}{\ln(2)}} \cdot \sqrt{\frac{\ln(4)}{\ln(2)}} \cdot \sqrt{\frac{\ln(8)}{\ln(4)}} \cdot \sqrt{\frac{\ln(16)}{\ln(8)}} dx \left(\sqrt{\frac{\ln(2)}{\ln(2)}} \cdot \sqrt{\frac{\ln(4)}{\ln(2)}} \cdot \sqrt{\frac{\ln(8)}{\ln(4)}} \cdot \sqrt{\frac{\ln(16)}{\ln(8)}} \right) \left(\sqrt{\frac{\ln(32)}{\ln(16)}} \cdot \sqrt{\frac{\ln(64)}{\ln(32)}} \cdot \sqrt{\frac{\ln(128)}{\ln(64)}} \cdot \sqrt{\frac{\ln(256)}{\ln(128)}} \cdot \sqrt{\frac{\ln(512)}{\ln(256)}} \right) dx + 1 \right] \right] \right] = 7$$

§137

If someone do not understand the exact meaning of Octave as 8, Collatz number serie or Einsteins energy unit, all Octave structure, but an Octave is 12 halftone 8 tone as Octave is as next table describe jump of 12 halftone in 8 section, and music scale is based on potenz $2^{(1/12)^2}$ is 1,12246205, not $2^{(1/12)}$ times 2 is next tone after c, tone is c# sharp. So when Collatz conjecture build sequence of 16,8,4,2,1 is define as modulo 2 but by music scale is modulo $2^{(1/12)}$, because n th potent of $2^{(1/12)}$ build sequence of 2,4,8,16...

C	c#	d	d#	e	f	
	0	1	2	3	4	5
	1 1,05946309	1,12246205	1,18920712	1,25992105	1,33483985	
	$2^{(1/12)}$	$2^{(2/12)}$	$2^{(3/12)}$	$2^{(4/12)}$	$2^{(5/12)}$	

DO		RE		MI	FA	
	1		2		3	4

§138

##	g	g#	a	a#	b/H in German	c
	6	7	8	9	10	11
1,41421356	1,49830708	1,58740105	1,68179283	1,78179744	1,88774863	12
$2^{(6/12)}$	$2^{(7/12)}$	$2^{(8/12)}$	$2^{(9/12)}$	$2^{(10/12)}$	$2^{(11/12)}$	$2^{(12/12)}$
	SOL		LA		SI	DO
	5		6		7	8
	16 octave	8 octave	4 octave	2 octave	1 octave	
	16	8	4	2	1	
number of half-tone frequency		192	96	48	24	12
	16	8	4	2		
	2^4	2^3	2^2	2^1		

§139

1	1,73205081
1,41421356	2
1,22474487	2,23606798
1,15470054	2,44948974
1,11803399	2,64575131
1,09544512	2,82842712
1,08012345	3
1,06904497	3,16227766
1,06066017	3,31662479
1,05409255	3,46410162
1,04880885	3,60555128
1,04446594	3,74165739
1,040833	3,87298335
1,03774904	4
1,03509834	4,12310563
1,03279556	4,24264069
1,03077641	4,35889894
1,02899151	4,47213595
1,02740233	4,58257569
1,02597835	4,69041576
1,02469508	4,79583152
1,02353263	4,89897949
1,02247472	5
1,02150784	5,09901951
1,02062073	5,19615242
1,0198039	5,29150262
1,01904933	5,38516481
1,01835015	5,47722558
1,01770049	5,56776436
1,01709526	5,65685425
1,01653005	5,74456265
1,01600102	5,83095189
1,0155048	5,91607978
1,01503844	6
1,01459931	6,08276253
1,01418511	6,164414
1,01379376	6,244998
1,01342342	6,32455532
1,01307245	6,40312424
1,01273937	6,4807407

95
80

			/ ln		=	/	7
In	2 ^ 0 =	1024	/ ln 2 ^ 9 =	512	1,11111111	1	1,0540925
	1		1		1 = 0 / 9	1	5
In	2 ^ 1 =	2048	/ ln 2 ^ 0 =	1024	1,1	1 / 0	1,0488088
	1		1		1,09090909	1	5
In	2 ^ 2 =	4096	/ ln 2 ^ 1 =	2048	1 = 2 / 1	1	1,0444659
	1		1		1,08333333	1	4
In	2 ^ 3 =	8192	/ ln 2 ^ 2 =	4096	3 = 3 / 2	1	1,040833
	1		1		1,07692307	1	1,0377490
In	2 ^ 4 =	16384	/ ln 2 ^ 3 =	8192	7 = 4 / 3	1	4
	1		1		1,07142857	1	1,0350983
In	2 ^ 5 =	32768	/ ln 2 ^ 4 =	16384	1 = 5 / 4	1	4
	1		1		1,06666666	1	1,0327955
In	2 ^ 6 =	65536	/ ln 2 ^ 5 =	32768	7 = 6 / 5	1	6
	1		1		1,0625 = 7 / 6	1	1,0307764
In	2 ^ 7 =	131072	/ ln 2 ^ 6 =	65536	1,05882352	1	1
	1		1	13107	9 = 8 / 7	1	1,0289915
In	2 ^ 8 =	262144	/ ln 2 ^ 7 =	2	1,05555555	1	1
	1		1	26214	6 = 9 / 8	1	1,0274023
In	2 ^ 9 =	524288	/ ln 2 ^ 8 =	4	1,05263157	2	3
	2	104857	1	52428	9 = 0 / 9	1	1,0259783
In	2 ^ 0 =	6	/ ln 2 ^ 9 =	8	9 = 0 / 9	2	5
	2	209715	2		2	2	1,0246950
In	2 ^ 1 =	2	/ ln 2 ^ 0 =	1E+06	1,05 = 1 / 0	2	8
	2	419430	2		1,04761904	2	1,0235326
In	2 ^ 2 =	4	/ ln 2 ^ 1 =	2E+06	8 = 2 / 1	2	3
	2	838860	2		1,04545454	2	1,0224747
In	2 ^ 3	8	/ ln 2 ^ 2 =	4E+06	5 = 3 / 2	2	2

§141

$$\int_0^1 \sqrt{\frac{2}{1}} \cdot \sqrt{\frac{3}{2}} \cdot \sqrt{\frac{4}{3}} dx = 2$$

§142

$$\int_0^1 \sqrt{\frac{2}{1}} \cdot \sqrt{\frac{3}{2}} \cdot \sqrt{\frac{4}{3}} \cdot \sqrt{\frac{5}{4}} \cdot \sqrt{\frac{6}{5}} \cdot \sqrt{\frac{7}{6}} \cdot \sqrt{\frac{8}{7}} \cdot \sqrt{\frac{9}{8}} dx =$$

product from square root from

2/1,3/2,4/3,5/4,6/5,7/6,8/7 9/8 became 3 times velocity of electron, so 5 times is serie at 5 square of 25

§143

$$\int_0^1 \sqrt{\frac{2}{1}} \cdot \sqrt{\frac{3}{2}} \cdot \sqrt{\frac{4}{3}} \cdot \sqrt{\frac{5}{4}} \cdot \sqrt{\frac{6}{5}} \cdot \sqrt{\frac{7}{6}} \cdot \sqrt{\frac{8}{7}} \cdot \sqrt{\frac{9}{8}} \cdot \sqrt{\frac{10}{9}} \cdot \sqrt{\frac{11}{10}} \cdot \sqrt{\frac{12}{11}} \cdot \sqrt{\frac{13}{12}} \cdot \sqrt{\frac{14}{13}} \cdot \sqrt{\frac{15}{14}} \cdot \sqrt{\frac{16}{15}} \cdot \sqrt{\frac{17}{16}} \cdot \sqrt{\frac{18}{17}} \cdot \sqrt{\frac{19}{18}} \cdot \sqrt{\frac{20}{19}} \cdot \sqrt{\frac{21}{20}} \cdot \sqrt{\frac{22}{21}} \cdot \sqrt{\frac{23}{22}} \cdot \sqrt{\frac{24}{23}} \cdot \sqrt{\frac{25}{24}} dx = 5$$

§144

$$\int_0^1 \sqrt{\frac{2}{1}} \cdot \sqrt{\frac{3}{2}} \cdot \sqrt{\frac{4}{3}} \cdot \sqrt{\frac{5}{4}} \cdot \sqrt{\frac{6}{5}} \cdot \sqrt{\frac{7}{6}} \cdot \sqrt{\frac{8}{7}} \cdot \sqrt{\frac{9}{8}} \cdot \sqrt{\frac{10}{9}} \cdot \sqrt{\frac{11}{10}} \cdot \sqrt{\frac{12}{11}} \cdot \sqrt{\frac{13}{12}} \cdot \sqrt{\frac{14}{13}} \cdot \sqrt{\frac{15}{14}} \cdot \sqrt{\frac{16}{15}} \cdot \sqrt{\frac{17}{16}} \cdot \sqrt{\frac{18}{17}} \cdot \sqrt{\frac{19}{18}} \cdot \sqrt{\frac{20}{19}} \cdot \sqrt{\frac{21}{20}} \cdot \sqrt{\frac{22}{21}} \cdot \sqrt{\frac{23}{22}} \cdot \sqrt{\frac{24}{23}} \cdot \sqrt{\frac{25}{24}} \cdot \sqrt{\frac{26}{25}} \cdot \sqrt{\frac{27}{26}} \cdot \sqrt{\frac{28}{27}} \cdot \sqrt{\frac{29}{28}} \cdot \sqrt{\frac{30}{29}} \cdot \sqrt{\frac{31}{30}} \cdot \sqrt{\frac{32}{31}} \cdot \sqrt{\frac{33}{32}} \cdot \sqrt{\frac{34}{33}} \cdot \sqrt{\frac{35}{34}} \cdot \sqrt{\frac{36}{35}} dx =$$

6 square of 6 is 36 so value 6 became at square root from 36=6^2/35

§145

593,0969715	quotient	q^2		
			1	1
838,7657809	1,414213562		2	1,414213562
1027,274088	1,224744871		1,5	1,732050808
1186,193943	1,154700538	1,333333333		2
1326,205145	1,118033989		1,25	2,236067977
1452,784948	1,095445115		1,2	2,449489743
1569,18709	1,08012345	1,166666667		2,645751311
1677,531562	1,069044968	1,142857143		2,828427125
1779,290914	1,060660172		1,125	3
1875,537303	1,054092553	1,111111111		3,16227766
1967,080119	1,048808848		1,1	3,31662479
2054,548177	1,044465936	1,090909091		3,464101615
2138,441542	1,040833	1,083333333		3,605551275
2219,165664	1,037749043	1,076923077		3,741657387
2297,054693	1,035098339	1,071428571		3,872983346
2372,387886	1,032795559	1,066666667		4
2445,40146	1,030776406		1,0625	4,123105626
2516,297343	1,028991511	1,058823529		4,242640687
2585,249762	1,027402334	1,055555556		4,358898944
2652,410291	1,025978352	1,052631579		4,472135955
2717,911766	1,024695077		1,05	4,582575695
2781,871382	1,023532631	1,047619048		4,69041576
2844,393152	1,022474716	1,045454545		4,795831523
2905,569896	1,021507837	1,043478261		4,898979486
2965,484857	1,020620726	1,041666667		5
3024,213031	1,019803903		1,04	5,099019514
3081,822265	1,019049331	1,038461538		5,196152423
3138,37418	1,018350154	1,037037037		5,291502622
3193,924938	1,017700489	1,035714286		5,385164807
3248,525901	1,017095255	1,034482759		5,477225575
3302,224181	1,016530045	1,033333333		5,567764363
3355,063123	1,016001016	1,032258065		5,656854249
3407,082708	1,015504801		1,03125	5,744562647
3458,31991	1,015038438	1,03030303		5,830951895
3508,809002	1,014599312	1,029411765		5,916079783
3558,581829	1,014185106	1,028571429		6

§146 $2*3=6$ is all procedure from 2^{n+1} and 2^n

§147

1	2	2
1,414213562	4	2
1,732050808	8	4

2

16 8

2,236067977	32	16
2,449489743	64	32
2,645751311	128	64
2,828427125	256	128

3

512 256

5,099019514	7E+07	33554432
5,196152423	1E+08	67108864

5,291502622	3E+08	1,34E+08
5,385164807	5E+08	2,68E+08
5,477225575	1E+09	5,37E+08
5,567764363	2E+09	1,07E+09
5,656854249	4E+09	2,15E+09
5,744562647	9E+09	4,29E+09
5,830951895	2E+10	8,59E+09
5,916079783	3E+10	1,72E+10

6 7E+10 3,44E+10

§148

593,0969715	quotient	q ²		
			1	1
838,7657809	1,414213562		2	1,414213562
1027,274088	1,224744871		1,5	1,732050808
1186,193943	1,154700538	1,333333333		2
1326,205145	1,118033989		1,25	2,236067977
1452,784948	1,095445115		1,2	2,449489743
1569,18709	1,08012345	1,166666667		2,645751311
				3

§149 I do not solved my question for years, but finally answer is find, answer is:Einstein number serie is square root of quotient from 2^{n+1} to 2^n , $n+1$ and n are exponent to basis of 2. then Collatz conjectures final sequence became endless. $2^{(n+1)}$ if n is 1, then $2^{(2)}$ is 4, $2^{(1)}$ is 2, at once all double progression are open. Collatz conjecture is all division andwer is simple 2. §150 but Einstein serie is square root from 2 of 1,414213562, square root from 1,5 is 1,224744871... square root from 1,333333333 is 1,154700538. this is exact the progression of velocity of electron or proton

§151 Multiplication of Einstein serie as square root from $n+1$ and n , build integer, like 2,3,4,5,6,7,8,9,10, which are mean n times of velocity of 593,0969715 km.

§152

			1	1
838,7657809	1,414213562		2	1,414213562
1027,274088	1,224744871		1,5	1,732050808
1186,193943	1,154700538	1,333333333		2
1326,205145	1,118033989		1,25	2,236067977
1452,784948	1,095445115		1,2	2,449489743
1569,18709	1,08012345	1,166666667		2,645751311
1677,531562	1,069044968	1,142857143		2,828427125
1779,290914	1,060660172		1,125	3
1875,537303	1,054092553	1,111111111		3,16227766
1967,080119	1,048808848		1,1	3,31662479
2054,548177	1,044465936	1,090909091		3,464101615
2138,441542	1,040833	1,083333333		3,605551275
2219,165664	1,037749043	1,076923077		3,741657387
2297,054693	1,035098339	1,071428571		3,872983346
2372,387886	1,032795559	1,066666667		4
2445,40146	1,030776406		1,0625	4,123105626
2516,297343	1,028991511	1,058823529		4,242640687
2585,249762	1,027402334	1,055555556		4,358898944
2652,410291	1,025978352	1,052631579		4,472135955
2717,911766	1,024695077		1,05	4,582575695
2781,871382	1,023532631	1,047619048		4,69041576
2844,393152	1,022474716	1,045454545		4,795831523
				7

2905,569896	1,021507837	1,043478261	4,898979486	8
2965,484857	1,020620726	1,041666667	5	
3024,213031	1,019803903	1,04	5,099019514	1
3081,822265	1,019049331	1,038461538	5,196152423	2
3138,37418	1,018350154	1,037037037	5,291502622	3
3193,924938	1,017700489	1,035714286	5,385164807	4
3248,525901	1,017095255	1,034482759	5,477225575	5
3302,224181	1,016530045	1,033333333	5,567764363	6
3355,063123	1,016001016	1,032258065	5,656854249	7
3407,082708	1,015504801	1,03125	5,744562647	8
3458,31991	1,015038438	1,03030303	5,830951895	9
3508,809002	1,014599312	1,029411765	5,916079783	10
3558,581829	1,014185106	1,028571429	6	
3607,668035	1,013793755	1,027777778	6,08276253	1
3656,095276	1,013423419	1,027027027	6,164414003	2
3703,8894	1,01307245	1,026315789	6,244997998	3
3751,074606	1,012739367	1,025641026	6,32455532	4
3797,673593	1,012422837	1,025	6,403124237	5
3843,707681	1,012121655	1,024390244	6,480740698	6
3889,196929	1,011834731	1,023809524	6,557438524	7
3934,160237	1,011561078	1,023255814	6,633249581	8
3978,615436	1,011299794	1,022727273	6,708203932	9
4022,579373	1,011050059	1,022222222	6,782329983	10
4066,067981	1,010811125	1,02173913	6,8556546	11
4109,096354	1,010582305	1,021276596	6,92820323	12
4151,6788	1,010362971	1,020833333	7	
4193,828904	1,010152545	1,020408163	7,071067812	1
4235,559573	1,009950494	1,02	7,141428429	2
4276,883084	1,009756329	1,019607843	7,211102551	3
4317,811127	1,009569596	1,019230769	7,280109889	4
4358,354844	1,009389877	1,018867925	7,348469228	5
4398,524863	1,009216785	1,018518519	7,416198487	6
4438,331329	1,009049958	1,018181818	7,483314774	7
4477,783939	1,008889064	1,017857143	7,549834435	8
4516,891965	1,00873379	1,01754386	7,615773106	9
4555,66428	1,008583848	1,017241379	7,681145748	10
4594,109386	1,008438968	1,016949153	7,745966692	11
4632,235429	1,008298897	1,016666667	7,810249676	12
4670,050223	1,008163401	1,016393443	7,874007874	13
4707,56127	1,008032258	1,016129032	7,937253933	14
4744,775772	1,007905261	1,015873016	8	
4781,700654	1,007782219	1,015625	8,062257748	1
4818,342574	1,007662947	1,015384615	8,124038405	2
4854,707939	1,007547277	1,015151515	8,185352772	3
4890,802919	1,007435047	1,014925373	8,246211251	4
4926,633456	1,007326105	1,014705882	8,306623863	5
4962,205279	1,00722031	1,014492754	8,366600265	6
4997,523912	1,007117528	1,014285714	8,426149773	7
5032,594685	1,00701763	1,014084507	8,485281374	8
5067,422746	1,006920498	1,013888889	8,544003745	9
5102,013064	1,006826018	1,01369863	8,602325267	10
5136,370442	1,006734083	1,013513514	8,660254038	11
5170,499525	1,006644591	1,013333333	8,717797887	12
5204,404803	1,006557447	1,013157895	8,774964387	13
5238,090623	1,006472559	1,012987013	8,831760866	14
5271,561191	1,006389841	1,012820513	8,888194417	15

5304,820582	1,006309211	1,012658228	8,94427191	16
5337,872743	1,00623059	1,0125	9	
5370,721501	1,006153904	1,012345679	9,055385138	1
5403,370565	1,006079083	1,012195122	9,110433579	2
5435,823532	1,00600606	1,012048193	9,16515139	3
5468,083896	1,00593477	1,011904762	9,219544457	4
5500,155044	1,005865153	1,011764706	9,273618495	5
5532,040268	1,00579715	1,011627907	9,327379053	6
5563,742764	1,005730706	1,011494253	9,38083152	7
5595,265638	1,005665768	1,011363636	9,433981132	8
5626,61191	1,005602285	1,011235955	9,486832981	9
5657,784513	1,005540209	1,011111111	9,539392014	10
5688,786304	1,005479493	1,010989011	9,591663047	11
5719,62006	1,005420094	1,010869565	9,643650761	12
5750,288484	1,005361969	1,010752688	9,695359715	13
5780,794207	1,005305077	1,010638298	9,746794345	14
5811,139792	1,00524938	1,010526316	9,797958971	15
5841,327735	1,00519484	1,010416667	9,848857802	16
5871,360466	1,005141422	1,010309278	9,899494937	17
5901,240356	1,005089091	1,010204082	9,949874371	18
5930,969715	1,005037815	1,01010101	10	

§153 For example integer 4 is square root of 16 in n+1 serie. By Collatz number is 65536 and 32768

4 16 15 65536 32768 LN 65536 / LN 32768 = 2 1,066666667

Integer 3 is square root from 9 by n+1 serie

3 9 8 512 256 LN 512 / LN 256 = 2 1,125

By Collatz number is 512 and 256.

n+1	n	2 ^{^(n+1)}	2 ^{^(n)}				
1	1	2	2	LN	2 / LN	2 = 1	1
2	1	4	2	LN	4 / LN	2 = 2	2
3	2	8	4	LN	8 / LN	4 = 2	1,5
4	3	16	8	LN	16 / LN	8 = 2	1,333333333
5	4	32	16	LN	32 / LN	16 = 2	1,25
6	5	64	32	LN	64 / LN	32 = 2	1,2
7	6	128	64	LN	128 / LN	64 = 2	1,166666667
8	7	256	128	LN	256 / LN	## = 2	1,142857143

$$\int_0^1 \left(\frac{2 \cdot 1.60217656510^{-19}}{9.1093829110^{-31}} \right)^{\frac{1}{2}} dx = \frac{1000}{593.097 \text{ km}}$$

n+1	N						squart root		
2	1	a	b	a/b	ln(2)	ln(a)/ln(b)	Einstein	secondstep	a/b
				Collatz					Einstein
3	2	ln	8 / ln	4 =	2 =	0,693147181	=	1,224744871	= 1,5
4	3	ln	16 / ln	8 =	2 =	0,693147181	=	1,154700538	= 1,333333333
5	4	ln	32 / ln	16 =	2 =	0,693147181	=	1,118033989	= 1,25
6	5	ln	64 / ln	32 =	2 =	0,693147181	=	1,095445115	= 1,2
7	6	ln	128 / ln	64 =	2 =	0,693147181	=	1,08012345	= 1,166666667
8	7	ln	256 / ln	128 =	2 =	0,693147181	=	1,069044968	= 1,142857143
9	8	ln	512 / ln	256 =	2 =	0,693147181	=	1,060660172	= 1,125
10	9	ln	1024 / ln	512 =	2 =	0,693147181	=	1,054092553	= 1,111111111
11	10	ln	2048 / ln	1024 =	2 =	0,693147181	=	1,048808848	= 1,1
12	11	ln	4096 / ln	2048 =	2 =	0,693147181	=	1,044465936	= 1,090909091
13	12	ln	8192 / ln	4096 =	2 =	0,693147181	=	1,040833	= 1,083333333
14	13	ln	16384 / ln	8192 =	2 =	0,693147181	=	1,037749043	= 1,076923077
15	14	ln	32768 / ln	16384 =	2 =	0,693147181	=	1,035098339	= 1,071428571
16	15	ln	65536 / ln	32768 =	2 =	0,693147181	=	1,032795559	= 1,066666667
17	16	ln	131072 / ln	65536 =	2 =	0,693147181	=	1,030776406	= 1,0625
18	17	ln	262144 / ln	131072 =	2 =	0,693147181	=	1,028991511	= 1,058823529

§155

Mass times square of velocity is energy based by electron.

Famous equation by Einstein $E = mc^2$ is mass of electron times square of velocity became same value of nth elementary charge, $9,10938 \cdot 10^{-31}$ times square of 593,0969715 results $3,20435 \cdot 10^{-25}$ which has 2 times of energy unit of $1,60218 \cdot 10^{-19}$ 0,000002 times one million is integer 2, as n^2 .

=	0,000002	2*1	1000000	2
=	0,000004	2*2	1000000	4
=	0,000006	3*2	1000000	6
=	0,000008	4*2	1000000	8
=	0,00001	5*2	1000000	10

§156

$$F = 96\,485,3365 \text{ (21)}$$

96485,3365 Faraday constant $C \cdot \text{mol}^{-1}$
 6,02214E+23 Avogadro constant $6.02214179(30) \times 10^{23} \text{ mol}^{-1}$.
 Faraday constant divide by Avogadro constant is elementary
 1,60218E-19 charge

$$\frac{\text{integer multiples of } \frac{1}{3} e}{\frac{6241509629152650000}{3}} =$$

§157

The number of charged electron is generally as integer multiples of $\frac{1}{3} e$
 like Collatz conjecture used, but this number 6241509629152650000 is not by 2
 divisible like final sequence of Collatz conjecture.

§158

$$\left[\int_0^1 \frac{\ln \left[\frac{1}{(1.6021765510^{-19})} \right]}{\ln(2)} dx \right] = 62.4366006702347742$$

§159 As expression above show , first $2^{(62,43660072810558452)}$ accord to the number
 of charged electron of 6241509629152650000.

§160

$$\left[\int_0^1 \left(\frac{\ln(6241509629152650000)}{\ln(2^{62.43660072810558452})} \right) dx \right] = 1$$

$$6.241.509.629.152.650.000$$

§161

Elementary charge	rest mass of electron	velocity/kilometer	m*v^2			
1,60218E-19	9,10938E-31	593,0969715	quotient	Q^2	3,20435E-25	0,000002
1,60218E-19	9,10938E-31	838,7657809	1,414213562	2	6,40871E-25	0,000004
1,60218E-19	9,10938E-31	1027,274088	1,224744871	1,5	9,61306E-25	0,000006
1,60218E-19	9,10938E-31	1186,193943	1,154700538	1,333333333	1,28174E-24	0,000008
1,60218E-19	9,10938E-31	1326,205145	1,118033989	1,25	1,60218E-24	0,00001
1,60218E-19	9,10938E-31	1452,784948	1,095445115	1,2	1,92261E-24	0,000012
1,60218E-19	9,10938E-31	1569,18709	1,08012345	1,166666667	2,24305E-24	0,000014
1,60218E-19	9,10938E-31	1677,531562	1,069044968	1,142857143	2,56348E-24	0,000016
1,60218E-19	9,10938E-31	1779,290914	1,060660172	1,125	2,88392E-24	0,000018
1,60218E-19	9,10938E-31	1875,537303	1,054092553	1,111111111	3,20435E-24	0,00002
1,60218E-19	9,10938E-31	1967,080119	1,048808848	1,1	3,52479E-24	0,000022
1,60218E-19	9,10938E-31	2054,548177	1,044465936	1,090909091	3,84522E-24	0,000024
1,60218E-19	9,10938E-31	2138,441542	1,040833	1,083333333	4,16566E-24	0,000026
1,60218E-19	9,10938E-31	2219,165664	1,037749043	1,076923077	4,48609E-24	0,000028
1,60218E-19	9,10938E-31	2297,054693	1,035098339	1,071428571	4,80653E-24	0,00003
1,60218E-19	9,10938E-31	2372,387886	1,032795559	1,066666667	5,12697E-24	0,000032
1,60218E-19	9,10938E-31	2445,40146	1,030776406	1,0625	5,4474E-24	0,000034
1,60218E-19	9,10938E-31	2516,297343	1,028991511	1,058823529	5,76784E-24	0,000036
1,60218E-19	9,10938E-31	2585,249762	1,027402334	1,055555556	6,08827E-24	0,000038
1,60218E-19	9,10938E-31	2652,410291	1,025978352	1,052631579	6,40871E-24	0,00004
1,60218E-19	9,10938E-31	2717,911766	1,024695077	1,05	6,72914E-24	0,000042
1,60218E-19	9,10938E-31	2781,871382	1,023532631	1,047619048	7,04958E-24	0,000044

§162 By Collatz number calculation is all double value has division by 2 result as 2, but Einsteins $m \cdot v^2$ is same as calculation by natural logarithm $\ln 8 / \ln 4$ is not 2, but 1,5 as table shows in ratio of $n+1$ divide by n .

§163 But to calculate velocity acceleration of electron goes one step further
 $\ln$ square root v , of 8 divide $\ln$ square root of 4,

		a/b		sqaart root $\ln(a)/\ln(b)$ Einstein secondstep		a/b
A	b	Collatz	$\ln(2)$			Einstein
8 / $\ln$	4 =	2 =	0,693147181 =	1,224744871 =		1,5
16 / $\ln$	8 =	2 =	0,693147181 =	1,154700538 =		1,333333333
32 / $\ln$	16 =	2 =	0,693147181 =	1,118033989 =		1,25
64 / $\ln$	32 =	2 =	0,693147181 =	1,095445115 =		1,2
128 / $\ln$	64 =	2 =	0,693147181 =	1,08012345 =		1,166666667
256 / $\ln$	128 =	2 =	0,693147181 =	1,069044968 =		1,142857143
512 / $\ln$	256 =	2 =	0,693147181 =	1,060660172 =		1,125
1024 / $\ln$	512 =	2 =	0,693147181 =	1,054092553 =		1,111111111
2048 / $\ln$	1024 =	2 =	0,693147181 =	1,048808848 =		1,1
4096 / $\ln$	2048 =	2 =	0,693147181 =	1,044465936 =		1,090909091
8192 / $\ln$	4096 =	2 =	0,693147181 =	1,040833 =		1,083333333
16384 / $\ln$	8192 =	2 =	0,693147181 =	1,037749043 =		1,076923077
32768 / $\ln$	16384 =	2 =	0,693147181 =	1,035098339 =		1,071428571
65536 / $\ln$	32768 =	2 =	0,693147181 =	1,032795559 =		1,066666667
131072 / $\ln$	65536 =	2 =	0,693147181 =	1,030776406 =		1,0625
262144 / $\ln$	131072 =	2 =	0,693147181 =	1,028991511 =		1,058823529
524288 / $\ln$	262144 =	2 =	0,693147181 =	1,027402334 =		1,055555556

§164 Now compare the table above and table down.

elementary charge	rest mass of electron	velocity/kilometer	Quotient as square root	q^2	$n+1$	n
1,60218E-19	9,10938E-31	593,0969715	1		1	1
1,60218E-19	9,10938E-31	838,7657809	1,414213562		2	1
1,60218E-19	9,10938E-31	1027,274088	1,224744871		1,5	3

1,60218E-19	9,10938E-31	1186,193943	1,154700538	1,333333333	4	3
1,60218E-19	9,10938E-31	1326,205145	1,118033989	1,25	5	4
1,60218E-19	9,10938E-31	1452,784948	1,095445115	1,2	6	5
1,60218E-19	9,10938E-31	1569,18709	1,08012345	1,166666667	7	6
1,60218E-19	9,10938E-31	1677,531562	1,069044968	1,142857143	8	7
1,60218E-19	9,10938E-31	1779,290914	1,060660172	1,125	9	8

§165 This number table is made from Collatz/Titus number as astronomical unit n divide by reciprocal value of prime number 19, as of Collatz number divide by 1/19 and find the constant ratio, then became exact same ratio of acceleration of electron or proton in the elemental structure to mass of electron and elementary charge. From Collatz number divide by 19 and proof the number value became this result. Right corner of table is velocity or distance of electron which is perfect unity from table above that was taken elementary charge Faraday constant divide by Avogadro constant in relation to restmass of electron.

A	b	a/b	a=n+1 1	b=n 1	squart root from a/b 1	
						593 km
						838,6286425
10 /	5 =	2	2	1	1,414213562	km
5 /	3,333333333 =	1,5	3	2	1,224744871	1027,106129km
3,333333333 /	2,5 =	1,333333333	4	3	1,154700538	1186km
2,5 /	2 =	1,25	5	4	1,118033989	1325,988311km
2 /	1,666666667 =	1,2	6	5	1,095445115	1452,547417
1,666666667 /	1,428571429 =	1,166666667	7	6	1,08012345	1568,930527
1,428571429 /	1,25 =	1,142857143	8	7	1,069044968	1677,257285
1,25 /	1,111111111 =	1,125	9	8	1,060660172	1779
1,111111111 /	1 =	1,111111111	10	9	1,054092553	1875,230652
1 /	0,909090909 =	1,1	11	10	1,048808848	1966,758501
0,909090909 /	0,833333333 =	1,090909091	12	11	1,044465936	2054,212258
0,833333333 /	0,769230769 =	1,083333333	13	12	1,040833	2138,091906
0,769230769 /	0,714285714 =	1,076923077	14	13	1,037749043	2218,80283
0,714285714 /	0,666666667 =	1,071428571	15	14	1,035098339	2296,679124
0,666666667 /	0,625 =	1,066666667	16	15	1,032795559	2372
0,625 /	0,588235294 =	1,0625	17	16	1,030776406	2445,001636
0,588235294 /	0,555555556 =	1,058823529	18	17	1,028991511	2515,885927

0,555555556 / 0,526315789 = 1,055555556	19	18	1,027402334	2584,827074
0,526315789 / 0,5 = 1,052631579	20	19	1,025978352	2651,976621
0,5 / 0,476190476 = 1,05	21	20	1,024695077	2717,467387
0,476190476 / 0,454545455 = 1,047619048	22	21	1,023532631	2781,416546
0,454545455 / 0,434782609 = 1,045454545	23	22	1,022474716	2843,928093
0,434782609 / 0,416666667 = 1,043478261	24	23	1,021507837	2905,094835

§166 I study the Collatz number and Titius number n divide by reciprocal number sequence of prime number 19, then first value is 0,052631579 which is 1/19, second value 0,105263158 is reciprocal number of 9,5, the third value 0,157894737 is reciprocal number of 6,333333

§167

titius/Collatz	divide by 19	reciprocal n/19	reciprocal n/19	quotient
1	/19= 0,052631579	1/ 0,052631579 =	19	
2	/19= 0,105263158	1/ 0,105263158 =	9,5	2
3	/19= 0,157894737	1/ 0,157894737 =	6,333333333	1,5
4	/19= 0,210526316	1/ 0,210526316 =	4,75	1,333333333
5	/19= 0,263157895	1/ 0,263157895 =	3,8	1,25
6	/19= 0,315789474	1/ 0,315789474 =	3,166666667	1,2
7	/19= 0,368421053	1/ 0,368421053 =	2,714285714	1,166666667
8	/19= 0,421052632	1/ 0,421052632 =	2,375	1,142857143
9	/19= 0,473684211	1/ 0,473684211 =	2,111111111	1,125
10	/19= 0,526315789	1/ 0,526315789 =	1,9	1,111111111
11	/19= 0,578947368	1/ 0,578947368 =	1,727272727	1,1
12	/19= 0,631578947	1/ 0,631578947 =	1,583333333	1,090909091
13	/19= 0,684210526	1/ 0,684210526 =	1,461538462	1,083333333
14	/19= 0,736842105	1/ 0,736842105 =	1,357142857	1,076923077
15	/19= 0,789473684	1/ 0,789473684 =	1,266666667	1,071428571

quotient

	n+1	n			
2 =	2	1			
1,5 =	3 / 2	ln 8 / ln 4			
1,333333333 =	4 / 3	ln 16 / ln 8			
1,25 =	5 / 4	ln 32 / ln 16			
1,2 =	6 / 5	ln 64 / ln 32			
1,166666667 =	7 / 6	ln 128 / ln 64			
1,142857143 =	8 / 7	ln 256 / ln 128			
1,125 =	9 / 8	ln 512 / ln 256			
1,111111111 =	10 / 9	ln 1024 / ln 512			
1,1 =	11 / 10	ln 2048 / ln 1024			
1,090909091 =	12 / 11	ln 4096 / ln 2048			
1,083333333 =	13 / 12	ln 8192 / ln 4096			
1,076923077 =	14 / 13	ln 16384 / ln 8192			
1,071428571 =	15 / 14	ln 32768 / ln 16384			
1,066666667 =	16 / 15	ln 65536 / ln 32768			
1,0625 =	17 / 16	ln 131072 / ln 65536			
1,058823529 =	18 / 17	ln 262144 / ln 131072			

§168

			= 1/n/19		
			19		
			9,5	2	1,41421356
=	1,5 =	3 / 2	6,333333333	1,5	1,22474487 1,15470054
=	1,333333333 =	4 / 3	4,75	1,333333333	1,15470054 1,06066017
=	1,25 =	5 / 4	3,8	1,25	1,11803399 1,03279556
=	1,2 =	6 / 5	3,166666667	1,2	1,09544512 1,02062073
	1,166666667	7	6 2,71428571	1,166666667	1,08012345 1,01418511

§173 If one think more charged electron shall velocity became faster, but opposite is the case , less charged electron result velocity became faster, possibly more space to move .

1,60218E-	
19	1 6,24151E+18
3,20435E-	
19	2 3,12075E+18
4,80653E-	
19	3 2,0805E+18

§174

2n elementary electriccharge	number of charged electron
3,20435E-19	3,12075E+18
6,40871E-19	1,56038E+18
9,61306E-19	1,04025E+18
1,28174E-18	7,80189E+17
1,60218E-18	6,24151E+17
1,92261E-18	5,20126E+17
2,24305E-18	4,45822E+17
2,56348E-18	3,90094E+17
2,88392E-18	3,46751E+17
3,20435E-18	3,12075E+17
3,52479E-18	2,83705E+17
3,84522E-18	2,60063E+17
4,16566E-18	2,40058E+17
4,48609E-18	2,22911E+17
4,80653E-18	2,0805E+17
5,12697E-18	1,95047E+17
5,4474E-18	1,83574E+17
5,76784E-18	1,73375E+17
6,08827E-18	1,6425E+17
6,40871E-18	1,56038E+17
6,72914E-18	1,48607E+17
7,04958E-18	1,41852E+17

§175 Reciprocal relation of charged electron in inverse order is as this number table show 1,5, follow 1,333333, then 1,25, then 1,2... ratio of (3/2) (4/3) (5/4) n+1 to n relation.

§176

2	0,5		
3	0,33333333	1,5	0,66666667
4	0,25	1,33333333	0,75
5	0,2	1,25	0,8
6	0,16666667	1,2	0,83333333
7	0,14285714	1,16666667	0,85714286
8	0,125	1,14285714	0,875
9	0,11111111	1,125	0,88888889

§177 Collatz number n divide by (1/19) continues exact same value as electrons distance or velocity to electro Volt. But Titius number is distance of planet from the sun value is not velocity but the distance in unit AU

§178 Study of sum of Collatz conjecture divide by reciprocal number serie of 19. reciprocal number serie of 19 or 81 has no end

§179// .052631578947368421052631578947368421052631578947368421(again and again repiet 18
periode into infinity.

§180

1	2	3	4	5	6	7
	109	150	274	336	367	461
27	82	41	124	62	31	94
	5,736842105	7,894736842	14,42105263	17,68421053	19,31578947	24,26315789

§181 Collatz conjecture number divide by 19 became this result.

§182 Interesting point of $n+1$ and n is sum of progression from $5 \cdot 20^n$,

§183 We saw Einsteins basis of mv^2 direct based to number serie of $n+1$ and n .

§184

$n+1$	n
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	9
11	10
12	11
13	12
14	13
15	14
16	15
17	16
18	17
19	18

§185 First part of table on $n+1$ and n - Table for double progression by Collatz number.

$n+1$	n	a/b			
		A	B	Collatz	$\ln(2)$
2	1				
3	2	$\ln$	$8 / \ln$	$4 =$	$2 = 0,693147181 =$
4	3	$\ln$	$16 / \ln$	$8 =$	$2 = 0,693147181 =$
5	4	$\ln$	$32 / \ln$	$16 =$	$2 = 0,693147181 =$
6	5	$\ln$	$64 / \ln$	$32 =$	$2 = 0,693147181 =$
7	6	$\ln$	$128 / \ln$	$64 =$	$2 = 0,693147181 =$
8	7	$\ln$	$256 / \ln$	$128 =$	$2 = 0,693147181 =$
9	8	$\ln$	$512 /$	256	$2 \quad 0,693147181 =$

		ln	=	=
10	9	ln 1024 / ln 512	=	2 = 0,693147181 =
11	10	ln 2048 / ln 1024	=	2 = 0,693147181 =
12	11	ln 4096 / ln 2048	=	2 = 0,693147181 =
13	12	ln 8192 / ln 4096	=	2 = 0,693147181 =
14	13	ln 16384 / ln 8192	=	2 = 0,693147181 =
15	14	ln 32768 / ln 16384	=	2 = 0,693147181 =
16	15	ln 65536 / ln 32768	=	2 = 0,693147181 =
17	16	ln 131072 / ln 65536	=	2 = 0,693147181 =
18	17	ln 262144 / ln 131072	=	2 = 0,693147181 =

§186 By Collatz sequence is if a number n is even then divide by 2, for example number 8 divide by 2 is 4, by Einstein is not 2, but 1,5, because $4^{(1,5)}$ is 8. squer root of this 1,5 is acceleration of electron that says tension is between 2 numbers of value of exponent.

§187 Second part of table n+1 and n

squart root ln(a)/ln(b) Einstein secondstep	a/b Einstein
1,224744871 =	1,5
1,154700538 =	1,333333333
1,118033989 =	1,25
1,095445115 =	1,2
1,08012345 =	1,166666667
1,069044968 =	1,142857143
1,060660172 =	1,125
1,054092553 =	1,111111111
1,048808848 =	1,1
1,044465936 =	1,090909091
1,040833	1,083333333

$$1,037749043 = 1,076923077$$

$$1,032795559 = 1,066666667$$

$$1,028991511 = 1,058823529$$

§188

.1234567901234567901234567901234567901234567901234567901 series of number 1,2,3,4,5,6 as

^{\$190} Answer is simple, 81 divide by 19 number series is differ by first number 4 from

§191

$4.2631578947368421052631578947368421052631578947368421052$ this number already build $5 \cdot 20^n$

§192

.2345679012345679012345679012345679012345679012.

$$\frac{1}{-} =$$

Difference between $n+1$ and n is $0,111111111111$ which is reciprocal number of 9

§194

therefore subtracted $n+1$ minus 0,1111111111 is again reciprocal

^{§195} 81 dived by 19 is the number series of n+1 as reciprocal number produce.

$$\int_0^1 \frac{\left(\frac{81}{19}\right)}{81} dx =$$

again divide by 81 we have number series which is same as number table
down from $5 \cdot 20^n$

§196 Number series of reciprocal value of prime number 19.

.0526315789473684210526315789473684210526315789473684210

5	2	6	3	1	5	7	8	9	4	7	3	6	8	4	2	1	0	
																	5	
																1	0 0	
																2	0 0 0	
																4	0 0 0 0	
																8	0 0 0 0 0	
																1	6 0 0 0 0 0	
																3	2 0 0 0 0 0 0	
																6	4 0 0 0 0 0 0 0	
								1	2	8	0	0	0	0	0	0	0 0 0 0 0 0 0	
							2	5	6	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0	
					5	1	2	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
			1	0	2	4	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
		2	0	4	8	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
	4	0	9	6	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
8	1	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
3	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0 0 0 0 0	
19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

§197 C is Collatz number. 1/19 number series is on previous number table show that here printed again, above as sum from $5 \cdot 20^n$

$$C1 := 27$$

$$C2 := C1 \cdot 3 + 1$$

$$C3 := \frac{C2}{2}$$

$$\sum_{n=1}^1 \frac{C1 + C2 + C3}{19} = \int_0^1 \frac{1}{19} dx =$$

.05263157894736842105 reciprocal number of prime number 19
structure is to recognise from sum of first three Collatz number of number 27 divide by 19
7.89473684210526315 this structure continue in 111 following Collatz number. $C4 := C3 \cdot 3 + 1$

§198

$$\sum_{n=1}^1 \frac{C1+C2+C3+C4}{19} =$$

14.4210526315789473 recognise reciprocal number from 19. of 52631578947368... 111 number from 27 is... the sum of Collatz conjecture in first 14 step is as number table down show.

109 150 274 336 367 461 508 650 721 935 1042 1364 1525 2009

§199 Sum of Collatz number divide by prime number 19 has 2 direction , one move to rightside

§200 The other to left like our walk with 2 legs.

1	2	3	4	5
	109	150	274	336
27	82	41	124	62
5,736842105	7,894736842	14,42105263	17,68421053	
It seem	move to			
move to left	right	move to left	move to left	

§201 1/19 structure has 2 directions, to move to right or move to left in number series.

§202

$$\int_0^1 \frac{1}{19} dx =$$

.05263157894736842105263157894736842105263157894736842105
§203

$$\int_0^1 \frac{2}{19} dx =$$

.10526315789473684210526315789473684210526315789473684210

§204 Odd prime number 3 divide 19 from 5263 5 digit to right side

$$\int_0^1 \frac{3}{19} dx =$$

.15789473684210526315789473684210526315789473684210526315
§205

$$\int_0^1 \frac{4}{19} dx =$$

.21052631578947368421052631578947368421052631578947368421

§206 Even number 4 divide by 19 move from 5263, 3 digit to left.

§207 Prime number 5 divide by 19 move from 5263 17 digit to left or from 5263 just one digit to right side

$$\int_0^1 \frac{5}{19} dx =$$

.2631578947368421052631578947368421052631578947368421052

§208 I dont know the rule of odd or even number divide by 19 how many digit shift to one of 2directions and why?, but from this study I found other significant structure to Einsteins basis of velocity of electron or proton from following Collatz conjecture from number 27

$$\left[\int_0^1 \frac{27}{19} dx \right] =$$

1.4210526315789473684210526315789473684210526315789473684 first Collatz conjecture with number 27 divide by 19 odd number 27 changedigit from 5263 5 step to left, so we can not say odd number divide 19 to move always to the right side. If this number as astronomical unit AU then distance is no more in our sun system, far away outside of our sun system.

§210 When human being one day able to travel in milky way, then may be think Collatz or Titius number for orientation in space.

{ 27, 82, 41, 124, 62, 31, 94, 47, 142, 71, 214, 107, 322, 161, 484, 242, 121, 364, 182, 91, 274, 137, 412, 206, 103, 310, 155, 466, 233, 700, 350, 175, 526, 263, 790, 395, 1186, 593, 1780, 890, 445, 1336, 668, 334, 167, 502, 251, 754, 377, 1132, 566, 283, 850, 425, 1276, 638, 319, 958, 479, 1438, 719, 2158, 1079, 3238, 1619, 4858, 2429, 7288, 3644, 1822, 911, 2734, 1367, 4102, 2051, 6154, 3077, 9232, 4616, 2308, 1154, 577, 1732, 866, 433, 1300, 650, 325, 976, 488, 244, 122, 61, 184, 92, 46, 23, 70, 35, 106, 53, 160, 80, 40, 20, 10, 5, 16, 8, 4, 2, 1 }

§211 Collatz conjencture of velocity of the light

§212 Numer of Collatz conjecture seem at first jump of number 27 to 82 by definition of 3n+1 but

Between 27 and 82 is no jump of number. Best example to see is distance of the light in one second of 299792458 metre oparete after Collatz conjecture result after 138 the value 1, there is no jump of velocity by 3n+1 its continue without break

Value 27 take 2^(27) Value 82 take as 2^(82)

§213

1	299792458	
2	149896229	/2
3	449688688	3n+1
4	224844344	/2
5	112422172	/2
6	56211086	/2
7	28105543	/2
8	84316630	3n+1
9	42158315	/2
10	126474946	3n+1
11	63237473	/2
12	189712420	3n+1
13	94856210	/2

14	47428105	/2
15	142284316	3n+1
16	71142158	/2
17	35571079	/2
18	106713238	3n+1
19	53356619	/2
20	160069858	3n+1
21	80034929	/2
22	240104788	3n+1
23	120052394	/2
24	60026197	/2
25	180078592	3n+1
26	90039296	/2
27	45019648	/2
28	22509824	/2
29	11254912	/2
30	5627456	/2
31	2813728	/2
32	1406864	/2
33	703432	/2
34	351716	/2
35	175858	/2
36	87929	/2
37	263788	3n+1
38	131894	/2
39	65947	/2
40	197842	3n+1
41	98921	/2
42	296764	3n+1
43	148382	/2
44	74191	/2
45	222574	3n+1
46	111287	/2
47	333862	3n+1
48	166931	/2
49	500794	3n+1
50	250397	/2
51	751192	3n+1
52	375596	/2
53	187798	/2
54	93899	/2
55	281698	3n+1
56	140849	/2
57	422548	3n+1
58	211274	/2
59	105637	/2
60	316912	3n+1
61	158456	/2
62	79228	/2
63	39614	/2
64	19807	/2
65	59422	3n+1
66	29711	/2
67	89134	3n+1
68	44567	/2
69	133702	3n+1

70	66851	/2
71	200554	3 n+1
72	100277	/2
73	300832	3n+1
74	150416	/2
75	75208	/2
76	37604	/2
77	18802	/2
78	9401	/2
79	28204	3n+1
80	14102	/2
81	7051	/2
82	21154	3n+1
83	10577	/2
84	31732	3 n+1
85	15866	/2
86	7933	/2
87	23800	3n+1
88	11900	/2
89	5950	/2
90	2975	/2
91	8926	3n+1
92	4463	/2
93	13390	3n+1
94	6695	/2
95	20086	3n+1
96	10043	/2
97	30130	3n+1
98	15065	/2
99	45196	3n+1
100	22598	/2
101	11299	/2
102	33898	3n+1
103	16949	/2
104	50848	3n+1
105	25424	/2
106	12712	/2
107	6356	/2
108	3178	/2
109	1589	/2
110	4768	3n+1
111	2384	/2
112	1192	/2
113	596	/2
114	298	/2
115	149	/2
116	448	3n+1
117	224	/2
118	112	/2
119	56	/2
120	28	/2
121	14	/2
122	7	/2
123	22	3n+1
124	11	/2
125	34	3n+1

126	17 /2
127	52 3n+1
128	26 /2
129	13 /2
130	40 3n+1
131	20 /2
132	10 /2
133	5 /2
134	16 3n+1
135	8 /2
136	4 /2
137	2 /2
138	1 /2

§214 Value 27 as $2^{(27)}$ 134217728
 and one number less of 27, value 26, take as $2^{(26)}$ 67108864

§215 result is 1,03846154 this number value was at the beginning 2 from 8 to 4
 from 4 to to which is very familiar by Collatz final sequence, here is any Collatz
 conjecture take as exponent on number 2 so all number has $2^{(n+1)}$ to 2^n structure
 I name as Einstein sequence, because of sequence of electron or Proton on this basis
 structure result and final Collatz conjecture became different value than 2

4 /	ln	2 =	2
8 /	ln	4	1,5
16 /	ln	8	1,33333333
32 /	ln	16	1,25
64 /	ln	32	1,2
128 /	ln	64	1,16666667
256 /	ln	128	1,14285714
512 /	ln	256	1,125
1024 /	ln	512	1,11111111
2048 /	ln	1024	1,1
4096 /	ln	2048	1,09090909
8192 /	ln	4096	1,08333333
16384 /	ln	8192	1,07692308
32768 /	ln	16384	1,07142857
65536 /	ln	32768	1,06666667
131072 /	ln	65536	1,0625
262144 /	ln	131072	1,05882353
524288 /	ln	262144	1,05555556
1048576 /	ln	524288	1,05263158
2097152 /	ln	1048576	1,05
4194304 /	ln	2097152	1,04761905
8388608 /	ln	4194304	1,04545455
16777216 /	ln	8388608	1,04347826
33554432 /	ln	16777216	1,04166667
67108864 /	ln	33554432	1,04
134217728 /	ln	67108864	1,03846154
Ln	134217728 /	ln	67108864
			1,03846154

§216 Fascination of Collatz conjecture is from only one number for example 27, 111 numbers produce from order if a number is even, then divide by 2, if a number is odd number, then multiply by 3 and add 1. velocity of the light has 138 numbers.

exponent	2 ^{exponent}	n+1	n			
0	1					
1	2	2 /	1 =	Collatz	4 /	2 = 2
2	4	3 /	2	Collatz	8 /	4 = 2
3	8	4 /	3	Collatz	16 /	8 = 2
4	16	5 /	4	Collatz	32 /	16 = 2
5	32	6 /	5	Collatz	64 /	32 = 2
6	64	7 /	6	Collatz	128 /	64 = 2
7	128	8 /	7	Collatz	256 /	128 = 2
8	256	9 /	8	Collatz	512 /	256 = 2
9	512	10 /	9	Collatz	1024 /	512 = 2
10	1024	11 /	10	Collatz	2048 /	1024 = 2
11	2048	12 /	11	Collatz	4096 /	2048 = 2
12	4096	13 /	12	Collatz	8192 /	4096 = 2
13	8192	14 /	13	Collatz	16384 /	8192 = 2
14	16384	15 /	14	Collatz	32768 /	16384 = 2
15	32768	16 /	15	Collatz	65536 /	32768 = 2
16	65536	17 /	16	Collatz	131072 /	65536 = 2
17	131072	18 /	17	Collatz	262144 /	131072 = 2
18	262144	19 /	18	Collatz	524288 /	262144 = 2
19	524288	20 /	19	Collatz	1048576 /	524288 = 2
20	1048576	21 /	20	Collatz	2097152 /	1048576 = 2
21	2097152	22 /	21	Collatz	4194304 /	2097152 = 2
22	4194304	23 /	22	Collatz	8388608 /	4194304 = 2
23	8388608	24 /	23	Collatz	16777216 /	8388608 = 2
24	16777216	25 /	24	Collatz	33554432 /	16777216 = 2
25	33554432	26 /	25	Collatz	67108864 /	33554432 = 2
26	67108864	27 /	26	Collatz	134217728 /	67108864 = 2
27	134217728	28	27		268435456	134217728 = 2

		/		Collatz	/	=
28	268435456	29 /	28	Collatz	536870912 /	268435456 = 2
29	536870912	30 /	29	Collatz	1073741824 /	536870912 = 2
30	1073741824	31 /	30	Collatz	2147483648 /	1073741824 = 2
31	2147483648	32 /	31	Collatz	4294967296 /	2147483648 = 2
32	4294967296	33 /	32	Collatz	8589934592 /	4294967296 = 2
33	8589934592	34 /	33	Collatz	17179869184 /	8589934592 = 2
34	17179869184	35 /	34	Collatz	34359738368 /	17179869184 = 2
35	34359738368	36 /	35	Collatz	68719476736 /	34359738368 = 2
36	68719476736	37 /	36	Collatz	1,37439E+11 /	68719476736 = 2
37	1,37439E+11	38 /	37	Collatz	2,74878E+11 /	1,37439E+11 = 2
38	2,74878E+11	39 /	38	Collatz	5,49756E+11 /	2,74878E+11 = 2
39	5,49756E+11	40 /	39	Collatz	1,09951E+12 /	5,49756E+11 = 2
40	1,09951E+12	41 /	40	Collatz	2,19902E+12 /	1,09951E+12 = 2
41	2,19902E+12	42 /	41	Collatz	4,39805E+12 /	2,19902E+12 = 2
42	4,39805E+12	43 /	42	Collatz	8,79609E+12 /	4,39805E+12 = 2
43	8,79609E+12	44 /	43	Collatz	1,75922E+13 /	8,79609E+12 = 2
44	1,75922E+13	45 /	44	Collatz	3,51844E+13 /	1,75922E+13 = 2
45	3,51844E+13	46 /	45	Collatz	7,03687E+13 /	3,51844E+13 = 2
46	7,03687E+13	47 /	46	Collatz	1,40737E+14 /	7,03687E+13 = 2
47	1,40737E+14	48 /	47	Collatz	2,81475E+14 /	1,40737E+14 = 2
48	2,81475E+14	49 /	48	Collatz	5,6295E+14 /	2,81475E+14 = 2
49	5,6295E+14	50 /	49	Collatz	1,1259E+15 /	5,6295E+14 = 2
50	1,1259E+15	51 /	50	Collatz	2,2518E+15 /	1,1259E+15 = 2
51	2,2518E+15	52 /	51	Collatz	4,5036E+15 /	2,2518E+15 = 2
52	4,5036E+15	53 /	52	Collatz	9,0072E+15 /	4,5036E+15 = 2
53	9,0072E+15	54 /	53	Collatz	1,80144E+16 /	9,0072E+15 = 2
54	1,80144E+16	55 /	54	Collatz	3,60288E+16 /	1,80144E+16 = 2
55	3,60288E+16	56 /	55	Collatz	7,20576E+16 /	3,60288E+16 = 2
56	7,20576E+16	57 /	56	Collatz	1,44115E+17 /	7,20576E+16 = 2
57	1,44115E+17	58 /	57	Collatz	2,8823E+17 /	1,44115E+17 = 2

58	2,8823E+17	59 /	58	Collatz	5,76461E+17 /	2,8823E+17 = 2
59	5,76461E+17	60 /	59	Collatz	1,15292E+18 /	5,76461E+17 = 2
60	1,15292E+18	61 /	60	Collatz	2,30584E+18 /	1,15292E+18 = 2
61	2,30584E+18	62 /	61	Collatz	4,61169E+18 /	2,30584E+18 = 2
62	4,61169E+18	63 /	62	Collatz	9,22337E+18 /	4,61169E+18 = 2
63	9,22337E+18	64 /	63	Collatz	1,84467E+19 /	9,22337E+18 = 2
64	1,84467E+19	65 /	64	Collatz	3,68935E+19 /	1,84467E+19 = 2
65	3,68935E+19	66 /	65	Collatz	7,3787E+19 /	3,68935E+19 = 2
66	7,3787E+19	67 /	66	Collatz	1,47574E+20 /	7,3787E+19 = 2
67	1,47574E+20	68 /	67	Collatz	2,95148E+20 /	1,47574E+20 = 2
68	2,95148E+20	69 /	68	Collatz	5,90296E+20 /	2,95148E+20 = 2
69	5,90296E+20	70 /	69	Collatz	1,18059E+21 /	5,90296E+20 = 2
70	1,18059E+21	71 /	70	Collatz	2,36118E+21 /	1,18059E+21 = 2
71	2,36118E+21	72 /	71	Collatz	4,72237E+21 /	2,36118E+21 = 2
72	4,72237E+21	73 /	72	Collatz	9,44473E+21 /	4,72237E+21 = 2
73	9,44473E+21	74 /	73	Collatz	1,88895E+22 /	9,44473E+21 = 2
74	1,88895E+22	75 /	74	Collatz	3,77789E+22 /	1,88895E+22 = 2
75	3,77789E+22	76 /	75	Collatz	7,55579E+22 /	3,77789E+22 = 2
76	7,55579E+22	77 /	76	Collatz	1,51116E+23 /	7,55579E+22 = 2
77	1,51116E+23	78 /	77	Collatz	3,02231E+23 /	1,51116E+23 = 2
78	3,02231E+23	79 /	78	Collatz	6,04463E+23 /	3,02231E+23 = 2
79	6,04463E+23	80 /	79	Collatz	1,20893E+24 /	6,04463E+23 = 2
80	1,20893E+24	81 /	80	Collatz	2,41785E+24 /	1,20893E+24 = 2
81	2,41785E+24	82 /	81	Collatz	4,8357E+24 /	2,41785E+24 = 2
82	4,8357E+24	83 /	82	Collatz	9,67141E+24 /	4,8357E+24 = 2
83	9,67141E+24	84 /	83	Collatz	1,93428E+25 /	9,67141E+24 = 2
84	1,93428E+25	85 /	84	Collatz	3,86856E+25 /	1,93428E+25 = 2
85	3,86856E+25	86 /	85	Collatz	7,73713E+25 /	3,86856E+25 = 2
86	7,73713E+25	87 /	86	Collatz	1,54743E+26 /	7,73713E+25 = 2
87	1,54743E+26	88 /	87	Collatz	3,09485E+26 /	1,54743E+26 = 2
88	3,09485E+26	89 /	88	Collatz	6,1897E+26 /	3,09485E+26 = 2

89	6,1897E+26	90 /	89	Collatz	1,23794E+27 /	6,1897E+26 = 2
90	1,23794E+27	91 /	90	Collatz	2,47588E+27 /	1,23794E+27 = 2
91	2,47588E+27	92 /	91	Collatz	4,95176E+27 /	2,47588E+27 = 2
92	4,95176E+27	93 /	92	Collatz	9,90352E+27 /	4,95176E+27 = 2
93	9,90352E+27	94 /	93	Collatz	1,9807E+28 /	9,90352E+27 = 2
94	1,9807E+28	95 /	94	Collatz	3,96141E+28 /	1,9807E+28 = 2
95	3,96141E+28	96 /	95	Collatz	7,92282E+28 /	3,96141E+28 = 2
96	7,92282E+28	97 /	96	Collatz	1,58456E+29 /	7,92282E+28 = 2
97	1,58456E+29	98 /	97	Collatz	3,16913E+29 /	1,58456E+29 = 2
98	3,16913E+29	99 /	98	Collatz	6,33825E+29 /	3,16913E+29 = 2
99	6,33825E+29	100 /	99	Collatz	1,26765E+30 /	6,33825E+29 = 2
100	1,26765E+30	101 /	100	Collatz	2,5353E+30 /	1,26765E+30 = 2
101	2,5353E+30	102 /	101	Collatz	5,0706E+30 /	2,5353E+30 = 2
102	5,0706E+30	103 /	102	Collatz	1,01412E+31 /	5,0706E+30 = 2
103	1,01412E+31	104 /	103	Collatz	2,02824E+31 /	1,01412E+31 = 2
104	2,02824E+31	105 /	104	Collatz	4,05648E+31 /	2,02824E+31 = 2
105	4,05648E+31	106 /	105	Collatz	8,11296E+31 /	4,05648E+31 = 2
106	8,11296E+31	107 /	106	Collatz	1,62259E+32 /	8,11296E+31 = 2
107	1,62259E+32	108 /	107	Collatz	3,24519E+32 /	1,62259E+32 = 2
108	3,24519E+32	109 /	108	Collatz	6,49037E+32 /	3,24519E+32 = 2
109	6,49037E+32	110 /	109	Collatz	1,29807E+33 /	6,49037E+32 = 2
110	1,29807E+33	111 /	110	Collatz	2,59615E+33 /	1,29807E+33 = 2
111	2,59615E+33	112 /	111	Collatz	5,1923E+33 /	2,59615E+33 = 2
112	5,1923E+33	113 /	112	Collatz	1,03846E+34 /	5,1923E+33 = 2
113	1,03846E+34	114 /	113	Collatz	2,07692E+34 /	1,03846E+34 = 2
114	2,07692E+34	115 /	114	Collatz	4,15384E+34 /	2,07692E+34 = 2
115	4,15384E+34	116 /	115	Collatz	8,30767E+34 /	4,15384E+34 = 2
116	8,30767E+34	117 /	116	Collatz	1,66153E+35 /	8,30767E+34 = 2
117	1,66153E+35	118 /	117	Collatz	3,32307E+35 /	1,66153E+35 = 2
118	3,32307E+35	119 /	118	Collatz	6,64614E+35 /	3,32307E+35 = 2
119	6,64614E+35	120 /	119	Collatz	1,32923E+36 /	6,64614E+35 = 2

120	1,32923E+36	121 / 120	Collatz	2,65846E+36 / 1,32923E+36 = 2
121	2,65846E+36	122 / 121	Collatz	5,31691E+36 / 2,65846E+36 = 2
122	5,31691E+36	123 / 122	Collatz	1,06338E+37 / 5,31691E+36 = 2
123	1,06338E+37	124 / 123	Collatz	2,12676E+37 / 1,06338E+37 = 2

§217 From the reason a little difficult to understand direct use of Collatz conjecture to Energy and velocity of electron by Relativity theory by Einstein, but this table shows clear how the Relation is. $n+1$ in the table is energy U/V .

§218 Based velocity of 593 kilometre grows from quotient of exponent by logical reason by Collatz conjecture

§219 Final number sequence of $3n+1$ problems came by Einstein at beginning to the last continues,

§220 What I define as Einstein number series is, for example

Collatz final sequence 16,8,4,2,1 take $2^{\wedge}(\text{exponent } 0) = 1$, $2^{\wedge}(\text{exponent } 1) = 2$; $2^{\wedge}(\text{exponent } 2) = 4$, $2^{\wedge}(\text{exponent } 3) = 8$, $2^{\wedge}(\text{exponent } 4) = 16$;

Therefore exponent 3 divide by exponent 2 is 1,5, number value 16 and 8 is quotient from 4 and 3 is quotient of 1,333333, Einstein took square root of this quotient as 1,154700538...

§221 From beginning 2 has square root 1,414213562... this value multiply based velocity of electron of 593km result velocity of 838,6286425km. next value is square root from 1,5. 838.6286425 km multiply by 1,224744871 result velocity of 1027,106129 km,

2	2 /	1 =	Collatz	4 /	2 =	2
4	3 /	2	Collatz	8 /	4 =	2

§222 This progression is by Collatz number sequence, all divide by 2. make half value of the number Einstein took all double value like $2^{\wedge}3=8$ $2^{\wedge}2$ of 4 took exponent of 3 and 2 and at first value 1,5 then squareroot of 1,224744871. So the number are by Collatz number at the last sequence, opposite by Einstein. Einsteins definition is from the begin to last continue.

On the violin of Einstein has similar phenomenon which called Quart Flageolet on interval of 1,333333 relation produce double Oktave like from $2^{\wedge}4=16$ $2^{\wedge}3=8$ exponent 4 to 3 of 1,333333 Wikipedia describe as follows,

Quart-Flageolet: Wird das Flageolet eine [Quarte](#) über dem (leeren oder gegriffenen) Ausgangston ausgeführt (1/4 Saitenlänge), so klingt das Ergebnis eine doppelte Oktave über dem Ausgangston. On one of 4 strings of 1/4 length, touch very light then produce 2 octave higher tone than based tone of string. $\log 16 / \log 8 = 1,333333$ is octave higher. Than relation from $\log 8 / \log 4$ of 1,5

§223

		electron		$n+1$	
quotient from		square root	velocity		n
exponent					
	2	1,414213562	838,6286425	1	
	1,5	1,224744871	1027,106129	2	2 / 1
	1,333333333	1,154700538	1186	3	3 / 2
	1,25	1,118033989	1325,988311	4	4 / 3
	1,2	1,095445115	1452,547417	5	5 / 4
	1,166666667	1,08012345	1568,930527	6	6 / 5
	1,142857143	1,069044968	1677,257285	7	7 / 6
	1,125	1,060660172	1779	8	8 / 7
	1,111111111	1,054092553	1875,230652	9	9 / 8
	1,1	1,048808848	1966,758501	10	10 / 9
	1,090909091	1,044465936	2054,212258	11	11 / 10

1,083333333	1,040833	2138,091906	12	4096	13 /	12
1,076923077	1,037749043	2218,80283	13	8192	14 /	13
1,071428571	1,035098339	2296,679124	14	16384	15 /	14
1,066666667	1,032795559	2372	15	32768	16 /	15
1,0625	1,030776406	2445,001636	16	65536	17 /	16
1,058823529	1,028991511	2515,885927	17	131072	18 /	17
1,055555556	1,027402334	2584,827074	18	262144	19 /	18
1,052631579	1,025978352	2651,976621	19	524288	20 /	19
1,05	1,024695077	2717,467387	20	1048576	21 /	20
1,047619048	1,023532631	2781,416546	21	2097152	22 /	21
1,045454545	1,022474716	2843,928093	22	4194304	23 /	22
1,043478261	1,021507837	2905,094835	23	8388608	24 /	23
1,041666667	1,020620726	2965	24	16777216	25 /	24
1,04	1,019803903	3023,718572	25	33554432	26 /	25
1,038461538	1,019049331	3081,318387	26	67108864	27 /	26
1,037037037	1,018350154	3137,861055	27	134217728	28 /	27
1,035714286	1,017700489	3193,402731	28	268435456	29 /	28
1,034482759	1,017095255	3247,994766	29	536870912	30 /	29
1,033333333	1,016530045	3301,684267	30	1073741824	31 /	30
1,032258065	1,016001016	3354,51457	31	2147483648	32 /	31
1,03125	1,015504801	3406,525649	32	4294967296	33 /	32
1,03030303	1,015038438	3457,754474	33	8589934592	34 /	33
1,029411765	1,014599312	3508,235311	34	17179869184	35 /	34
1,028571429	1,014185106	3558	35	34359738368	36 /	35
1,027777778	1,013793755	3607,07818	36	68719476736	37 /	36
1,027027027	1,013423419	3655,497504	37	1,37439E+11	38 /	37
1,026315789	1,01307245	3703,283813	38	2,74878E+11	39 /	38
1,025641026	1,012739367	3750,461305	39	5,49756E+11	40 /	39
1,025	1,012422837	3797,052673	40	1,09951E+12	41 /	40
1,024390244	1,012121655	3843,079234	41	2,19902E+12	42 /	41
1,023809524	1,011834731	3888,561045	42	4,39805E+12	43 /	42
1,023255814	1,011561078	3933,517001	43	8,79609E+12	44 /	43
1,022727273	1,011299794	3977,964932	44	1,75922E+13	45 /	44
1,022222222	1,011050059	4021,92168	45	3,51844E+13	46 /	45
1,02173913	1,010811125	4065,403178	46	7,03687E+13	47 /	46
1,021276596	1,010582305	4108,424516	47	1,40737E+14	48 /	47
1,020833333	1,010362971	4151	48	2,81475E+14	49 /	48
1,020408163	1,010152545	4193,143212	49	5,6295E+14	50 /	49
1,02	1,009950494	4234,867058	50	1,1259E+15	51 /	50
1,019607843	1,009756329	4276,183813	51	2,2518E+15	52 /	51
1,019230769	1,009569596	4317,105164	52	4,5036E+15	53 /	52
1,018867925	1,009389877	4357,642252	53	9,0072E+15	54 /	53
1,018518519	1,009216785	4397,805703	54	1,80144E+16	55 /	54
1,018181818	1,009049958	4437,605661	55	3,60288E+16	56 /	55
1,017857143	1,008889064	4477,05182	56	7,20576E+16	57 /	56
1,01754386	1,00873379	4516,153452	57	1,44115E+17	58 /	57
1,017241379	1,008583848	4554,919428	58	2,8823E+17	59 /	58
1,016949153	1,008438968	4593,358249	59	5,76461E+17	60 /	59
1,016666667	1,008298897	4631,478058	60	1,15292E+18	61 /	60
1,016393443	1,008163401	4669,286669	61	2,30584E+18	62 /	61
1,016129032	1,008032258	4706,791582	62	4,61169E+18	63 /	62
1,015873016	1,007905261	4744	63	9,22337E+18	64 /	63
1,015625	1,007782219	4780,918845	64	1,84467E+19	65 /	64
1,015384615	1,007662947	4817,554774	65	3,68935E+19	66 /	65
1,015151515	1,007547277	4853,914194	66	7,3787E+19	67 /	66
1,014925373	1,007435047	4890,003272	67	1,47574E+20	68 /	67

1,014705882	1,007326105	4925,827951	68	2,95148E+20	69 /	68
1,014492754	1,00722031	4961,393957	69	5,90296E+20	70 /	69
1,014285714	1,007117528	4996,706815	70	1,18059E+21	71 /	70
1,014084507	1,00701763	5031,771855	71	2,36118E+21	72 /	71
1,013888889	1,006920498	5066,594221	72	4,72237E+21	73 /	72
1,01369863	1,006826018	5101,178883	73	9,44473E+21	74 /	73
1,013513514	1,006734083	5135,530644	74	1,88895E+22	75 /	74
1,013333333	1,006644591	5169,654147	75	3,77789E+22	76 /	75
1,013157895	1,006557447	5203,553882	76	7,55579E+22	77 /	76
1,012987013	1,006472559	5237,234194	77	1,51116E+23	78 /	77
1,012820513	1,006389841	5270,699289	78	3,02231E+23	79 /	78
1,012658228	1,006309211	5303,953243	79	6,04463E+23	80 /	79
1,0125	1,00623059	5337	80	1,20893E+24	81 /	80
1,012345679	1,006153904	5369,843387	81	2,41785E+24	82 /	81
1,012195122	1,006079083	5402,487112	82	4,8357E+24	83 /	82
1,012048193	1,00600606	5434,934774	83	9,67141E+24	84 /	83
1,011904762	1,00593477	5467,189863	84	1,93428E+25	85 /	84
1,011764706	1,005865153	5499,255768	85	3,86856E+25	86 /	85
1,011627907	1,00579715	5531,135778	86	7,73713E+25	87 /	86
1,011494253	1,005730706	5562,833091	87	1,54743E+26	88 /	87
1,011363636	1,005665768	5594,350811	88	3,09485E+26	89 /	88
1,011235955	1,005602285	5625,691957	89	6,1897E+26	90 /	89
1,011111111	1,005540209	5656,859464	90	1,23794E+27	91 /	90
1,010989011	1,005479493	5687,856187	91	2,47588E+27	92 /	91
1,010869565	1,005420094	5718,684901	92	4,95176E+27	93 /	92
1,010752688	1,005361969	5749,348311	93	9,90352E+27	94 /	93
1,010638298	1,005305077	5779,849046	94	1,9807E+28	95 /	94
1,010526316	1,00524938	5810,18967	95	3,96141E+28	96 /	95
1,010416667	1,00519484	5840,372676	96	7,92282E+28	97 /	96
1,010309278	1,005141422	5870,400497	97	1,58456E+29	98 /	97
1,010204082	1,005089091	5900,275502	98	3,16913E+29	99 /	98
1,01010101	1,005037815	5930	99	6,33825E+29	100 /	99
1,01	1,004987562	5959,576243	100	1,26765E+30	101 /	100
1,00990099	1,004938302	5989,006428	101	2,5353E+30	102 /	101
1,009803922	1,004890005	6018,292698	102	5,0706E+30	103 /	102
1,009708738	1,004842643	6047,437143	103	1,01412E+31	104 /	103
1,009615385	1,004796191	6076,441804	104	2,02824E+31	105 /	104
1,00952381	1,004750621	6105,308674	105	4,05648E+31	106 /	105
1,009433962	1,004705908	6134,039697	106	8,11296E+31	107 /	106
1,009345794	1,00466203	6162,636773	107	1,62259E+32	108 /	107
1,009259259	1,004618962	6191,10176	108	3,24519E+32	109 /	108
1,009174312	1,004576683	6219,43647	109	6,49037E+32	110 /	109
1,009090909	1,004535171	6247,642675	110	1,29807E+33	111 /	110
1,009009009	1,004494405	6275,72211	111	2,59615E+33	112 /	111
1,008928571	1,004454365	6303,676467	112	5,1923E+33	113 /	112
1,008849558	1,004415033	6331,507403	113	1,03846E+34	114 /	113
1,00877193	1,004376389	6359,21654	114	2,07692E+34	115 /	114
1,008695652	1,004338415	6386,805461	115	4,15384E+34	116 /	115
1,00862069	1,004301095	6414,275719	116	8,30767E+34	117 /	116
1,008547009	1,004264412	6441,628831	117	1,66153E+35	118 /	117
1,008474576	1,004228349	6468,866284	118	3,32307E+35	119 /	118
1,008403361	1,004192891	6495,989532	119	6,64614E+35	120 /	119
1,008333333	1,004158022	6523	120	1,32923E+36	121 /	120
1,008264463	1,004123729	6549,899083	121	2,65846E+36	122 /	121
1,008196721	1,004089997	6576,688148	122	5,31691E+36	123 /	122

§224 1,008130081 1,004056812 6603,368534 123 1,06338E+37 124 / 123

All accerelation of velocity of electron join with Collatz Theorem that back to 1.
 All accerelation is in relation square root of exponent as tension between 2^{n+1} to 2^n which number value $2^{(n+1)}$ as well 2^n both are divisible by 2 because bottom of number is 2, not in form of $N \cdot 2^n$ which number by Collatz sequence stopp by number N..

§225

n+1	n	$2^{(n+1)}$	$2^{(n)}$				Collatz	Einstein
2	1	4	2					
3	2	8	4	LN	8 / LN	4 =	2	1,5
4	3	16	8	LN	16 / LN	8 =	2	1,333333
5	4	32	16	LN	32 / LN	16 =	2	1,25
6	5	64	32	LN	64 / LN	32 =	2	1,2
7	6	128	64	LN	128 / LN	64 =	2	1,166667
8	7	256	128	LN	256 / LN	128 =	2	1,142857
9	8	512	256	LN	512 / LN	256 =	2	1,125
10	9	1024	512	LN	1024 / LN	512 =	2	1,111111
11	10	2048	1024	LN	2048 / LN	1024 =	2	1,1
12	11	4096	2048	LN	4096 / LN	2048 =	2	1,090909
13	12	8192	4096	LN	8192 / LN	4096 =	2	1,083333
14	13	16384	8192	LN	16384 / LN	8192 =	2	1,076923
15	14	32768	16384	LN	32768 / LN	16384 =	2	1,071429
16	15	65536	32768	LN	65536 / LN	32768 =	2	1,066667
17	16	131072	65536	LN	131072 / LN	65536 =	2	1,0625
18	17	262144	131072	LN	262144 / LN	131072 =	2	1,058824
19	18	524288	262144	LN	524288 / LN	262144 =	2	1,055556
20	19	1048576	524288	LN	1048576 / LN	524288 =	2	1,052632
21	20	2097152	1048576	LN	2097152 / LN	1048576 =	2	1,05
22	21	4194304	2097152	LN	4194304 / LN	2097152 =	2	1,047619

§226

5263	15789	47367	142101
5263	5263*3	5263*9	5263*27
1900	5700	17100	51300
1900	1900*3	1900*9	1900*27
3363	10089	30267	90801
	3363*3	3363*9	3363*27

§227 Number came again progression from 5 each 20 time

$$(5263*2)+(1900*2)+(3363*2)=21052$$

				5263	15789	47367	142101
84208	42104	21052	10526	5263	5263*3	5263*9	5263*27
30400	15200	7600	3800	1900	5700	17100	51300
15200*2	7600*2	3800*2	1900*2	1900	1900*3	1900*9	1900*27
53808	26904	13452	6726	3363	10089	30267	90801
	13452*2	6726*2	3363*2				

Sum 168416 84208 42104 21052 3363*3 3363*9 3363*27

§228 First part on acceleration of velocity of electron is from 593 km, then next velocity is 838,75 km this mean square root from 2 times 593 km. next velocity 1027 km is square root from 1,5 times 593 km, so each step is square root from ratio of n+1 to n.

Progression of 2^n 4 8 16 32... is by 3+1 problem is if n is even number then divide by 2

But $2^{(3)}/2^n$ is on the basis of 2 became ratio of 1,5 next step has value of 4/3

Exact same by acceleration of electron 1027 km from 838 km is 1,5.

§229 Same as ration from n+1 to n.

n+1	N
2	1
3	2
4	3
5	4
6	5

§230 Reciprocal number of 3^4 of 81 is

$$\int_0^1 \frac{1}{81} dx =$$

.01234567901234567901234567901234567901234567901 why after the number 7 became number 9 but not 8? . because in decimal system is a number greater then 10 change the decimal position,

so 10 became 9+1 then 8 became 9.

§231

1	2	3	4	5	6	7	8	9
								1+9 is 10
10	100	1000	10000	100000	1000000	10000000	100000000	1000000000
0,1	0,02	0,003	0,0004	0,00005	0,000006	0,0000007	0,00000008	0,000000009

^{§232}Here is number n 1,2,3,4,5,6 divide by 10^n value of exponent n on 10 is same as series of natural number of 1,2,3,4,5,6 as $10^1, 10^2, 10^3, 10^4 \dots$

$$\int_0^1 \frac{1}{81} dx =$$

§233 2345679012345679012345679012345679012345679012345679012

$$\int_0^1 \frac{81}{19} dx =$$

4.2631578947368421052631578947368421052631578947368421052

^{§234} We read exact same number as reciprocal number serie of 1/19, only differ first number 4

$$\int_0^1 \frac{1}{19} dx =$$

instead of 5. .05263157894736842105263157894736842105263157894736842105.

^{\$235}Next question is number of 81 divide by 19 has reciprocal number serie of $n+1$ to n , in same decimal system like $1/81$ after number 8 changes to number 9

593,0969715	quotient	q^2	n+1	n	
838,7657809	1,41421356		2	2	1
1027,274088	1,22474487		1,5	3	2
1186,193943	1,15470054	1,33333333		4	3
1326,205145	1,11803399	1,25		5	4
1452,784948	1,09544512	1,2		6	5
1569,18709	1,08012345	1,16666667			
1677,531562	1,06904497	1,14285714			
1779,290914	1,06066017	1,125			
1875,537303	1,05409255	1,11111111			
1967,080119	1,04880885	1,1			

^{§236}Without to know the lower velocity structure can not recognise difference to higher velocity.

\$237 This basic calculation is not involved further step of calculation by Einstein $E=mc^2$, just for low velocity but if we don't know exact basis of relativity theory, can not find the reason. for c^2 of velocity for this description need a large size of table and several interesting fundamental question came out to find reasonable answer for it.

§238

$$\int_0^1 (\text{mass} - \text{restmass}) \cdot \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}} - 1 dx$$

2048	3960 / LN	1024	3600 =	1,1
1024	3600 / LN	512	3240 =	1,11111111
512	3240 / LN	256	2880 =	1,125
256	2880 / LN	128	2520 =	1,14285714
128	2520 / LN	64	2160 =	1,16666667
64	2160 / LN	32	1800 =	1,2
32	1800 / LN	16	1440 =	1,25
16	1440 / LN	8	1080 =	1,33333333
8	1080 / LN	4	720 =	1,5
4	720 / LN	2	360 =	2

§239

16384
8192
4096
2048
1024
512
256
128
64
32
16
8
4

§240

For final solution of $3n+1$ Problem.

If definition by Collatz number is “ if number n multiply by 3 and 1 result to serie of 2^n ”, then number is crossing for example $5*3+1=16$

§241

This number value is in pascal triangle as based by prime number 11,

Digit sum of 11^4

§242

$$\int_0^1 11^4 dx =$$

14641.

$1+4+6+4+1=16$ is only in progression by 11^4 the last digit sum 16 in double progression of 2,4,8,16,32,64

§243

But the number back to 1 key number is multiply by 3 and add 1 became in serie of 2^n which by divide by 2 back to 1, following number, for example 1431655765 can by multiplication by 3 and add 1 crossing to 2^n that by division by 2 all back to 1

§244 But process to arrive to number 1431655765 by division by 2 and multiple by 3 and add 1 are not simple sequence.

	(N -					
32	4294967296	1)/3=	4294967295	/3=	1431655765 GO	4294967296
	(N -					
31	2147483648	1)/3=	2147483647	/3=	715827882,3	2147483648
	(N -					
30	1073741824	1)/3=	1073741823	/3=	357913941 GO	1073741824
	(N -					
29	536870912	1)/3=	536870911	/3=	178956970,3	536870912
	(N -					
28	268435456	1)/3=	268435455	/3=	89478485 GO	268435456
	(N -					
27	134217728	1)/3=	134217727	/3=	44739242,33	134217728
	(N -					
26	67108864	1)/3=	67108863	/3=	22369621 GO	67108864
	(N -					
25	33554432	1)/3=	33554431	/3=	11184810,33	33554432
	(N -					
24	16777216	1)/3=	16777215	/3=	5592405 GO	16777216
	(N -					
23	8388608	1)/3=	8388607	/3=	2796202,333	8388608
	(N -					
22	4194304	1)/3=	4194303	/3=	1398101 GO	4194304
	(N -					
21	2097152	1)/3=	2097151	/3=	699050,3333	2097152
	(N -					
20	1048576	1)/3=	1048575	/3=	349525 GO	1048576
	(N -					
19	524288	1)/3=	524287	/3=	174762,3333	524288
	(N -					
18	262144	1)/3=	262143	/3=	87381 GO	262144
	(N -					
17	131072	1)/3=	131071	/3=	43690,33333	131072
	(N -					
16	65536	1)/3=	65535	/3=	21845 GO	65536
	(N -					
15	32768	1)/3=	32767	/3=	10922,33333	32768
	(N -					
14	16384	1)/3=	16383	/3=	5461 GO	16384
	(N -					
13	8192	1)/3=	8191	/3=	2730,333333	8192
	(N -					
12	4096	1)/3=	4095	/3=	1365 GO	4096
	(N -					
11	2048	1)/3=	2047	/3=	682,3333333	2048
	(N -					
10	1024	1)/3=	1023	/3=	341 GO	1024
	(N -					
9	512	1)/3=	511	/3=	170,3333333	512
8	256	(N -	255		85 GO	256

		1)/3= (N -		/3=		
7	128	1)/3= (N -	127	/3=	42,33333333	128
6	64	1)/3= (N -	63	/3=	21 GO	64
5	32	1)/3= (N -	31	/3=	10,33333333	32
4	16	1)/3= (N -	15	/3=	5 GO	16
3	8	1)/3= (N -	7	/3=	2,33333333	8
2	4	1)/3= (N -	3	/3=	1 GO	4

§245 If the number meet value 21 then multiple by 3 and add 1 became value 64 which can back to one because 64 is in 6 step $\ln 64$ divide by $\ln 2$ is 6 this is mean 2^6 is number 64, therefore by division by 2 in 6 steps back to 1.

	64	6	32	16	8	4	2	1
	32	5	1	2	3	4	5	6
	0	1	2	3	4	5	6	
	11	11	121	1331	14641	161051	1771561	
digit sum		2	4	8	16	14	28	

§246 Then certify already the Theorem by Collatz.

§247 Number 5 is invers value of 2.

§248 Solution has a natural reason that we can see everyday and everypart of earth by astronomical sunrise azimuth and sunsetazimuth, mathematically polarcoordinate system which is based on 360° , instead of Cartesian coordinate system based on 90°

§249

Methode

§250 All Collatz number convert to natural logarithmus $\ln(n)$, reason is this number table show Otherwise all number have has no constant curvature and angle value, means no orientation. Part of Collatz number sequence from 27, first number value took as exponent on basis of 2, 82 to 41 is relation of half and double value, $\ln(82/41)/$ divide by 2 times pi, which mean 360 degree. In polar coordinate system. Then we can take curvature constant 0,1103178... this is mean, not only double value but all Collatz numbers can change under the curvature constant to gain the over view on all Collatz number which in final sequence back to double progression that has typical character

of curvature constant in logarithmic spiral. Methode to convert Collatz number under curvature constant of $\ln 2/2\pi$ is very simple.

§251 Collatz number 27 convert to natural logarithm as $\ln 27$, then divide by $\ln 2$, then multiply by 360 but structure of Spiral can see

§252 First result of large angle of 1711,759 degree, again divide by $90 \cdot 18$. we get angle of $91,7595008^\circ$

§253 Folowing number value 82 and 41 have same angle of $38,718727^\circ$. (because of double relation.) Number value 124,62 and 31 have same angle of $73,5106717^\circ$. because sequence of double ness. Then we can recognise Collatz number serie with angle.

§254 Not exact the same to curvature constant is use at large hadron collider in Cern. They use frequency of 11028 Hz because velocity of the light 299792,458 km in length of tunnel of about e*10 of 27 km. application of curvature constant to frequency by large hadron collider in CERN.

§255

$$\int_0^1 \frac{299792.458}{e \cdot 10} dx = \frac{\int_0^1 \frac{299792.458}{e \cdot 10} dx}{\frac{2^5}{\frac{440}{\left(\frac{9}{2^{12}}\right)}}} = 1.317$$

11028.748191645309299634855285413141032239190077577375519

§256

$$\left[\int_0^1 \frac{\frac{299792.458}{\ln(2)}}{2 \cdot \pi} dx \right] = \frac{10^5}{27.175 \text{ km}}$$

if they use curvature constant as frequency; then tunnel length is

§257

$$\int_0^{10^4} \frac{\ln(2)}{2 \cdot \pi} dx = \frac{275.795}{2^2}$$

then 2 octav lower frequency is 275.795 Hz which is about halftone

$$\frac{275.795}{\frac{440}{\frac{9}{2^{12}}}} =$$

in relation to basis frequency in ratio of 1.054

§258

degree angle/30

$$\text{LN } 1,318 / \text{LN } 2 * 360 = 143,011924 \quad 4,76706415$$

§259 ... this mean tone of about halftone, so if in large hadron collider became frequency of about d flat or c sharp c#/ db, then particle arise close to the velocity of light.

§260

	Degree	degree
27 ln 3,295836866 / LN 2= 4,754887502 *360	1711,759501 / 90*	18 91,7595008
82 ln 4,406719247 / LN 2= 6,357552005 *360	2288,718722 / 90*	25 38,7187217
41 ln 3,713572067 / LN 2= 5,357552005 *360	1928,718722 / 90*	21 38,7187217
124 4,820281566 2= 6,95419631	2503,510672 90*	27 73,5106717

ln	/ LN	*360	/
62 ln 4,127134385	/ LN 2=	5,95419631 *360	2143,510672 / 90* 23 73,5106717
31 ln 3,433987204	/ LN 2=	4,95419631 *360	1783,510672 / 90* 19 73,5106717
94 ln 4,543294782	/ LN 2=	6,554588852 *360	2359,651987 / 90* 26 19,6519866
47 ln 3,850147602	/ LN 2=	5,554588852 *360	1999,651987 / 90* 22 19,6519866
142 ln 4,955827058	/ LN 2=	7,14974712 *360	2573,908963 / 90* 28 53,908963

§261

Final sequence by 3n+1 problem 32,16,8,4,2,1 has angle value of zero.

					degree
32 ln 3,465735903	/ LN 2=	5 *360	1800 / 90*	20	0
16 ln 2,772588722	/ LN 2=	4 *360	1440 / 90*	16	0
8 ln 2,079441542	/ LN 2=	3 *360	1080 / 90*	12	0
4 ln 1,386294361	/ LN 2=	2 *360	720 / 90*	8	0
2 ln 0,693147181	/ LN 2=	1 *360	360 / 90*	4	0
1 ln 0	/ LN 2=	0 *360	0 / 90*	0	0

§262

curvature constant	2	13421	LN(QUOT						
	7	7728	IENT	LN					
	8	4,836E	3,60288E+	38,1230	LN2		7,92282	66,90	11,9086
	2	+24	16	9493 / =	55 55		E+28 =	86	4225
				-				-	-
	4	2,199E	4,54747E-	28,4190	LN2	- -	4,70198	85,58	44,5837
0,1103178	1	+12	13	344 / =	41 41		E-38	37	375
- 1									
0,17613828	2	2,127E	9,67141E+	57,5312	LN2		4,46015	100,8	17,8728
7	4	+37	24	1599 / =	83 83		E+43	73	541
				-				-	-
	6	4,612E		42,9751	LN2	- -	4,65661	21,12	40,8789
0,1103178	2	+18	2,1684E-19	2519 / =	62 62		E-10	1	5032
				-				-	-
	3	2,147E	4,65661E-	21,4875	LN2	- -	5,04871	64,78	33,7893
0,1103178	1	+09	10	626 / =	31 31		E-29	93	221
-									
0,17655178	9	1,981E	9,22337E+	43,6682	LN2		1,29807	76,61	13,6127
4	4	+28	18	7238 / =	63 63		E+33	27	0278
0,1103178	4	1,407E	7,10543E-	-	- -		1,79366	-	-

	7	+14	15	32,5779 / LN2	47	47	E-43	98,06	51,0603
			1749	=				04	867
-	1								
0,17597435	4	5,575E	3,96141E+	65,8489 LN2			9,35361	115,4	20,4289
1	2	+42	28	8215 / =	95	95	E+49	29	4489
				-				-	-
	7	2,361E	4,23516E-	49,2134 LN2	-	-	3,79823	147,9	76,9669
0,1103178	1	+21	22	4982 / =	71	71	E-65	67	837
-	2								
0,17559503	1	2,633E	1,11504E+	99,1200 LN2	14	14	1,80925	173,6	30,6533
4	4	+64	43	4682 / =	3	3	E+75	53	0806
	1			-	-	-		-	-
	0	1,623E	6,16298E-	74,1667 LN2	10	10	1,17042	222,8	115,826
0,1103178	7	+32	33	4832 / =	7	7	E-97	27	879
-	3								
0,17534461	2	8,544E	5,26561E+	149,026 LN2	21	21	1,5391E	260,9	45,9898
5	2	+96	64	6438 / =	5	5	+113	9	5281
	1			-	-	-		-	-
	6	2,923E	3,42114E-	111,596 LN2	16	16	2,0021E	335,1	174,116
0,1103178	1	+48	49	6961 / =	1	1	-146	17	722
-	4								
0,17517874	8	4,99E+	1,70879E+	223,886 LN2	32	32	1,2077E	391,9	68,9946
9	4	145	97	5393 / =	3	3	+170	95	6994
	2			-	-	-		-	-
	4	7,067E	1,41495E-	167,741 LN2	24	24	3,76158	83,50	158,495
0,1103178	2	+72	73	6177 / =	2	2	E-37	43	7041
	1			-	-	-		-	-
	2	2,658E	3,76158E-	83,8708 LN2	12	12	2,6612E	251,9	130,939
0,1103178	1	+36	37	0885 / =	1	1	-110	39	061
-	3								
0,17528741	6	3,76E+	1,41348E+	168,434 LN2	24	24	8,6646E	294,9	51,9540
7	4	109	73	7649 / =	3	3	+127	54	6466
	1			-	-	-		-	-
	8	6,13E+	1,63133E-	126,152 LN2	18	18	4,03897	62,70	119,290
0,1103178	2	54	55	7869 / =	2	2	E-28	99	1195
				-				-	-
	9	2,476E	4,03897E-	63,0763 LN2	-	-	3,29444	189,5	98,5558
0,1103178	1	+27	28	9343 / =	91	91	E-83	56	146
-	2								
0,17543149	7	3,035E		126,845 LN2	18	18	2,13599	222,1	39,1736
6	4	+82	1,226E+55	934 / =	3	3	E+96	74	107
	1			-	-	-		-	-
	3	1,742E	5,73972E-	94,9611 LN2	13	13	9,4546E	285,2	148,210
0,1103178	7	+41	42	6374 / =	7	7	-125	1	125
-	4								
0,17523634	1	1,06E+	6,07084E+	190,615 LN2	27	27	6,2435E	333,7	58,7703
4	2	124	82	4747 / =	5	5	+144	7	0677
	2			-	-	-		-	-
	0	1,028E	9,72346E-	142,788 LN2	20	20	9,86076	71,02	134,972
0,1103178	6	+62	63	3192 / =	6	6	E-32	76	3533
0,1103178	1	1,014E	9,86076E-	-	-	-	4,79404	-	-

	0	+31	32	71,3941	/ LN2	10	10	E-94	214,5	111,509
	3			596	=	3	3		09	113
-	3									
0,17536380	1	2,086E	2,05688E+	143,481	LN2	20	20	9,3942E	251,2	44,2857
9	0	+93	62	4664	/ =	7	7	+108	86	9228
	1			-		-	-		-	-
	5	4,567E	2,18953E-	107,437	LN2	15	15	5,2483E	322,6	167,640
0,1103178	5	+46	47	813	/ =	5	5	-141	4	073
-	4									
0,17519147	6	1,91E+	4,17185E+	215,568	LN2	31	31	5,7586E	377,4	66,4385
7	6	140	93	7732	/ =	1	1	+163	39	7915
	2			-		-	-		-	-
	3	1,38E+	7,24454E-	161,503	LN2	23	23	1,9011E	484,8	251,836
0,1103178	3	70	71	2931	/ =	3	3	-211	37	513
-	7									
0,17507710	0	5,26E+	3,8107E+1	323,699	LN2	46	46	8,5351E	559,7	92,7362
3	0	210	40	7333	/ =	7	7	+242	36	8763
	3			-		-	-		-	-
0,10583426	6	2,35E+	4,4648E-	235,670	LN2	34	34	2,18953	107,0	232,928
6	0	108	103	0414	/ =	0	0	E-47	71	6999
	1			-		-	-		-	-
0,11480133	7	4,789E	2,03916E-	128,232	LN2	18	18	4,4455E	371,1	186,160
4	5	+52	56	2284	/ =	5	5	-162	6	376
	5									
-	2	2,2E+1	4,587E+10	243,294	LN2	35	35	6,7986E	425,9	74,9588
0,17515244	6	58	5	6604	/ =	1	1	+184	59	8178
	2			-		-	-		-	-
	6	1,482E	6,74701E-	182,297	LN2	26	26	1,5357E	547,2	284,219
0,1103178	3	+79	80	7085	/ =	3	3	-238	2	76
-	7									
0,17505116	9	6,51E+	4,3935E+1	365,288	LN2	52	52	3,5453E	639,4	112,448
6	0	237	58	5642	/ =	7	7	+277	48	2134
	3			-		-	-			
	9	8,07E+	1,2392E-	273,793	LN2	39	39			
0,1103178	5	118	119	1363	/ =	5	5			

§263

angle

angle

$$11520 / \text{LN } 2147483648 \quad 11160 = 1,03225806 = 32 / 31$$

$$11160 / \text{LN } 1073741824 \quad 10800 = 1,03333333 = 31 / 30$$

$$10800 / \text{LN } 536870912 \quad 10440 = 1,03448276 = 30 / 29$$

$$10440 / \text{LN } 268435456 \quad 10080 = 1,03571429 = 29 / 28$$

$$10080 / \text{LN } 134217728 \quad 9720 = 1,03703704 = 28 / 27$$

$$\begin{array}{l} 9720 / \text{LN } 67108864 \quad 9360 = 1,03846154 = 27 / 26 \\ 9360 \quad 33554432 \quad 9000 \quad 1,04 \quad 26 \quad 25 \end{array}$$

/ LN		=	=	/
9000 / LN	16777216	8640 =	1,04166667 =	25 / 24
8640 / LN	8388608	8280 =	1,04347826 =	24 / 23
8280 / LN	4194304	7920 =	1,04545455 =	23 / 22
7920 / LN	2097152	7560 =	1,04761905 =	22 / 21
7560 / LN	1048576	7200 =	1,05 =	21 / 20
7200 / LN	524288	6840 =	1,05263158 =	20 / 19
6840 / LN	262144	6480 =	1,05555556 =	19 / 18
6480 / LN	131072	6120 =	1,05882353 =	18 / 17
6120 / LN	65536	5760 =	1,0625 =	17 / 16
5760 / LN	32768	5400 =	1,06666667 =	16 / 15
5400 / LN	16384	5040 =	1,07142857 =	15 / 14
5040 / LN	8192	4680 =	1,07692308 =	14 / 13
4680 / LN	4096	4320 =	1,08333333 =	13 / 12
4320 / LN	2048	3960 =	1,09090909 =	12 / 11
3960 / LN	1024	3600 =	1,1 =	11 / 10
3600 / LN	512	3240 =	1,11111111 =	10 / 9
3240 / LN	256	2880 =	1,125 =	9 / 8
2880 / LN	128	2520 =	1,14285714 =	8 / 7
2520 / LN	64	2160 =	1,16666667 =	7 / 6
2160 / LN	32	1800 =	1,2 =	6 / 5
1800 / LN	16	1440 =	1,25 =	5 / 4
1440 / LN	8	1080 =	1,33333333 =	4 / 3
1080 / LN	4	720 =	1,5 =	3 / 2
720 / LN	2	360 =	2 =	2 / 1

§264

593,0969715	quotient	q^2
838,7657809	1,41421356	2
1027,274088	1,22474487	1,5
1186,193943	1,15470054	1,33333333
1326,205145	1,11803399	1,25
1452,784948	1,09544512	1,2
1569,18709	1,08012345	1,16666667
1677,531562	1,06904497	1,14285714
1779,290914	1,06066017	1,125
1875,537303	1,05409255	1,11111111
1967,080119	1,04880885	1,1

§265 But ratio by 2^n

§266 Collatz number $\frac{1}{3}t^2$ and third law by Johannes Kepler.

$$\int_0^1 \frac{4 \cdot \pi^2}{G \cdot M} dx =$$

$$2.97416683681849682360^{-19}$$

§267 Variable M is mass of earth+sun's mass.

$$1M_{\odot} = (1,98892 \pm 0.00025) \times 10^{30} \text{ kg}$$

5,9736 · 10²⁴ kg. Mass of earth

G =

$$\frac{1}{2.97416683681849682360^{-19}} = 3.362E+18$$

§268 This is hide structure behind the Collatz number

$$\frac{1}{3363} = 2.974E-4 \text{ if } 5263-1900 \text{ is } 3363$$

§269

$$\frac{1}{19} = .0526315789473684210526315789473684210526315789473684210526315789473684211$$